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Avid thinkorswim Fan

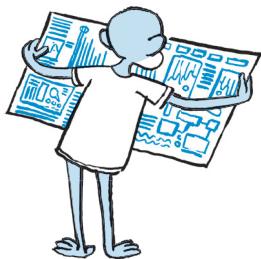
How to thinkorswim®

THE ART OF TRADING STOCKS &
OPTIONS, IN A NUTSHELL



How to thinkorswim®

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OPTIONS, IN A NUTSHELL



Hi soon-to-be trader.

WELCOME TO THE STOCK MARKET.

Whether you've never touched a stock, or have traded them for years, you're in the right place. From here on in, we want to ground you in fundamental realities and teach you something practical about trading that you can use right now—before the rest of your life kicks in. And this crash course in the stock market starts with the basics of trading both stocks and options.

GELATO V. ICE CREAM

What's in a name? The market has lots of jargon and features and moving parts. Some of those moving parts are similar, but distinctions are crucial.

First, let's make sure we're on the same page. This book is about trading, not investing. And the first thing you need to know about trading is that its focus is on the short term—meaning you might “hold” a stock position anywhere between a few seconds to several months. And traders make many more trades, more frequently than “buy and hold” investors.

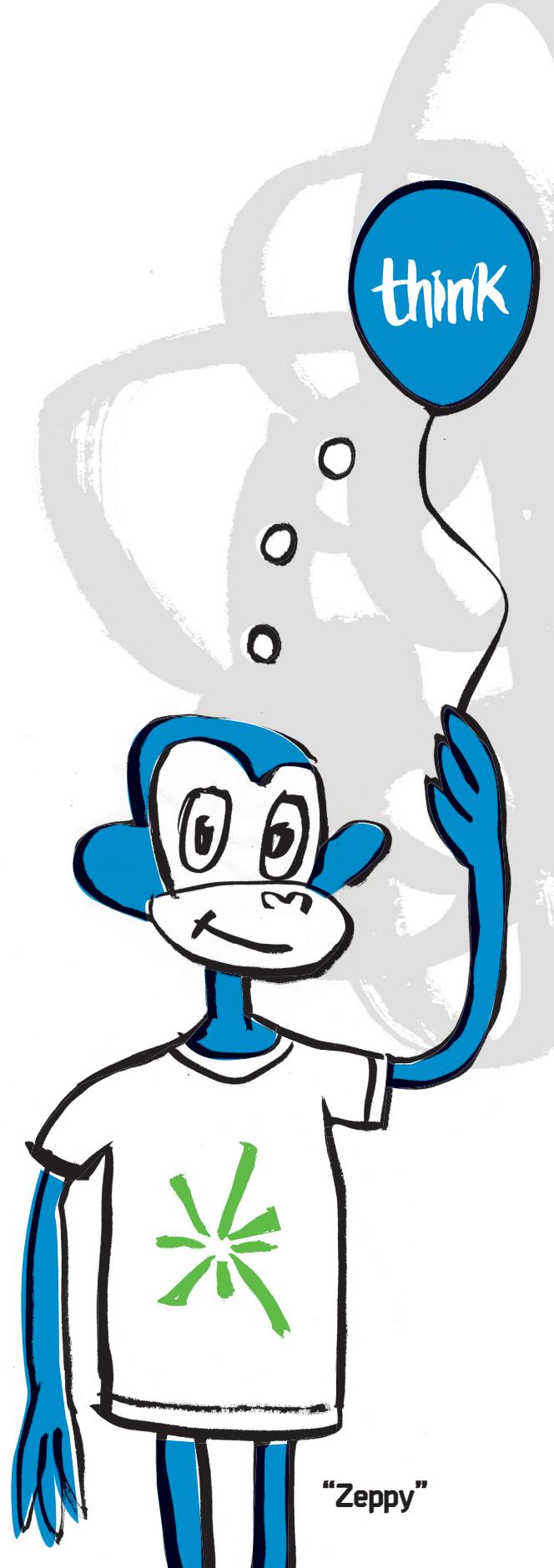
As an “investor,” the typical holding period of your stock positions might be years. Both trading and investing demand skill, knowledge, and discipline. But the bottom line: investing is based on the expectation of a long-term result while trading is essentially about momentum.

WHAT YOU'LL NEED

- Your brain
- This manual
- A digital device
- A trading platform for said digital device
- Moxie

Notice we didn't include money in the above list—yet. That's because the trading platform you'll want to learn on is thinkorswim® from TD Ameritrade. Or more specifically, paperMoney®, which is the “paper trading” version of thinkorswim. PaperMoney is a trading simulator that looks and feels just like thinkorswim, without a few of the bells and whistles you won't miss for now. During this learning curve, it's far cheaper to say “oops” with paperMoney than with real cash. In fact, please note that all trading-platform screen shots and how-to's will be from thinkorswim.

SO WITHOUT FURTHER DELAY, LET'S GET STARTED!



“Zeppy”

CONTENTS

**101**

4/ Market Basics **THE STOCK MARKET, TRADING, AND OTHER STUFF**

6/ CHAPTER 1 – STOCKS & THE MARKET
Starting from Scratch

10/ CHAPTER 2 – HOW TO TRADE A STOCK
Move It or Lose It

14/ CHAPTER 3 – ORDER TYPES
Sit. Stay. Good Trade

**201**

18/ The Art of Analysis **HOT OR NOT? (BIG NUMBERS AND SEXY CHARTS)**

20/ CHAPTER 4 – TECHNICAL ANALYSIS
Reading the Tea Leaves

27/ CHAPTER 5 – FUNDAMENTAL ANALYSIS (MICRO)
Financials Even a Trader Can Dig

30/ CHAPTER 6 – FUNDAMENTAL ANALYSIS (MACRO)
How to Trade the Government

**301**

34/ Options Made EZ **SMALL, IT'S THE NEW BIG**

36/ CHAPTER 7 – OPTION BASICS
The Ultimate Intro to Option Trading

43/ CHAPTER 8 – VOLATILITY
Markets Move. Get Over It

46/ CHAPTER 9 – THE GREEKS
A Guess at the Future

**401**

52/ Spread Trading Primer **UP, DOWN, WHO CARES?**

54/ CHAPTER 10 – VERTICAL SPREADS
The Mack Daddy of Option Spreads

62/ CHAPTER 11 – CALENDAR SPREADS
Killing Time

**501**

68/ Trade Management **HOW TO CHECK YOUR HEAD**

70/ CHAPTER 12 – RISK MANAGEMENT TIPS
Trading for the 99%

73/ CHAPTER 13 – CREATING A TRADING SYSTEM
Stickin' it to the Nerds

78/ CHAPTER 14 – DEALING WITH DRAWDOWNS
Adjusting Your Attitude in Four Steps

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MONKEY SEE, MONKEY DO

Zeppy gets trading. And along the way, he's going to have a few important things to point out. So keep a lookout for the following signals.

**CALL TO ACTION****HOW-TO****COOL INFO****WATCH A VIDEO****TRADER JARGON**

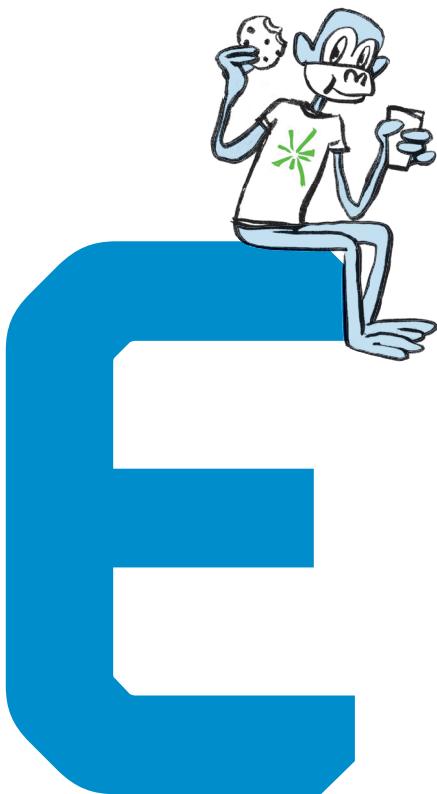
THE STOCK MARKET, TRADING, & OTHER STUFF

1 STOCKS & THE MARKET

2 HOW TO TRADE A STOCK

3 ORDER TYPES





very manual starts with the basics. So why should this one be any different? It's not, but don't let that detract you from the pearls and nuggets you're going to learn over the next few chapters. You may know a thing or two about the stock market, but you're also here to learn how to pull the levers on the thinkorswim® trading platform. To do that, you need context, theory, and practical application. So we've included all three.

As you begin, think of the stock market as both a good news and a bad news scenario. The good news is that it's open five days a week. The bad news is that it's open five days a week. On one hand, there's always another day to make (or lose) money. On the other hand, you shouldn't plan on being in the market all of the time. You don't have to be, and that's the point. There will always be potential opportunities. You'll win some. You'll lose some. But just because the market is open for business, doesn't mean you have to always be invested—a key difference between active trading and buy-and-hold investing.

The idea is to take your time, learn (or relearn) the basics, and when you're ready to jump in, start small. Build up your confidence and your knowledge. You don't have to know everything, but trading requires a different skill set that you hone over time.



● STOCKS & THE MARKET

CHAPTER 1

STARTING FROM SCRATCH

Okay, you may have the itch to start trading, but before you jump in, let's spend a little time learning what makes the stock market tick.

What the heck's a stock, anyway? When companies are "public," they sell shares of stock. When you own even a single share of a company's stock, you own a portion of that company's assets. And with that ownership, you have a claim on the company's future earnings. The more shares you buy, the bigger the piece of the company you own. And whether you own just one share or a million shares, the "return on your investment" (ROI) is going to be the same in terms of percentages. So, transaction costs aside, if the stock goes up 10%, your ROI is also generally 10%.

There are two primary ways you can earn money investing in stocks:

Appreciation. This is when a stock you own goes up in value. In this case, when you buy stock, you're speculating on the direction the stock will take. (Note: you can also potentially profit from a stock that goes down in price through a process called "[shorting](#)." (See Trader Jargon sidebar, page 6.)

Dividend income. Dividends are regularly scheduled payments some companies make to stock holders who own shares of the company (typically once per quarter). A dividend is a way for a publicly held company to give a portion of its earnings to shareholders, as a kind of incentive for investing in that company.

IS IT ALL MAGIC AND SPELLS?

Not at all. Suppose Red Flag Cycling makes bikes. Really good bikes. The bikes are so good, in fact, that the company wants to expand so it can sell more bikes to riders around the world. But to do this, the company needs to raise money (or "capital").

There are a number of ways a company can raise capital—of which, two primary methods are:

Getting a loan. Companies can borrow operating capital, which can mean taking on significant debt.

Issuing stock. By "going public" and issuing stock shares, a company can raise money without going into debt. It sells ownership shares and a claim on future earnings to its investors.

So, Red Flag opts for going public, but what does this have to do with you, the trader? Let's suppose Mary is looking for a better return on her money than the average investment, and is intrigued by trading. She could in this case look to the stock market for opportunities if she is willing to accept the higher risk of losing her investment for the potential of higher gains. In her research, she decides she likes the outlook for Red Flag Cycling, and the momentum its stock is having lately. One of the easiest ways to make this trade is for Mary to buy shares of stock through an online broker, using an electronic trading platform like TD Ameritrade's thinkorswim® (Figure 1).

Through her trading platform, Mary can place orders to buy and sell securities—i.e., stocks, options or other financial assets—listed on various exchanges, such as the New York Stock Exchange (NYSE) or Nasdaq (National Association of Securities Dealers Automated Quotations). These exchanges are the global marketplaces where stocks

Figure 1: An online trading platform, like TD Ameritrade's thinkorswim® shown here, is one of the most convenient and accessible ways of trading securities. For illustrative purposes only.



and other financial instruments are traded daily. The market is open for business from 9:30 a.m. ET to 4:00 p.m., Monday through Friday, all year long (except on holidays).

HOW MANY PIGGY BANKS WILL YOU NEED?

Every publicly traded stock listed on a trading exchange will show a “quote,” meaning the price you’ll pay to buy or sell the stock (the “ask” and the “bid” prices, respectively). In addition to the price of the stock, you’ll also have to pay commissions and fees for the transaction. So, if Mary comes across Red Flag Cycling at \$25 a share and thinks it’s a good opportunity, she places an order to buy shares (in which case, she’d be “long” the stock). The money is taken from the account she had opened to buy the stock, and what’s left can be used to buy other securities.

YES YOU CAN

Today, you can take control of the trading process yourself with a great deal of tech support. Don’t be afraid of bright colors and flashing numbers. As far as trading platforms go, the thinkorswim platform is designed to be trader-friendly, regardless of your skill and level of expertise.

Finally, keep in mind that to finish this course, you’ll need to become familiar with thinkorswim/paperMoney. So if you already know the trading basics, go ahead and skip to “How To Place a Trade” so you can start pressing buttons sooner.

WHY DO STOCKS MOVE AT ALL?

In a word, supply and demand. More demand and less supply makes prices go up. Less demand and more supply makes prices go down. And what drives those changes? Mostly real corporate earnings, as well as what the market expects of a company’s future earnings. If investors anticipate, say, that a company is soon to grow earnings at a faster pace, the stock price often goes up in anticipation, whether or not actual earnings reports are higher. It’s a bit of a mind thing.

Another reason stock prices change has to do with investors “playing the field.” Inves-

tors are fickle and have lots of choices. They often move their money around between competing financial instruments such as bonds, commodities, and foreign currencies. So if these other instruments become more tempting, investors may flee stocks and those stock prices may in fact fall. Or, they simply move between different stock sector groups that might be performing better than the ones they’re invested in—such as moving from technology to retail stocks, for example.

Of course, there are also macroeconomic factors, such as the state of the economy and interest rates. During an economic boom, stock prices rise as companies earn greater profits, while economic downturns or recessions usually hurt stocks. Rising interest rates make it more expensive for businesses and consumers to borrow money because of the extra money they’re paying. The net result is that businesses and consumers borrow less (and consequently spend less), which can cause economic growth to slow or shrink, having a negative effect on stock prices.

TRADERS ARE PEOPLE, TOO

The financial world is complicated. But don’t ignore the fact that human beings “move” the markets, meaning real people making real trades make stock prices go up and down all day long. And people are emotional. In fact, when traders put their research and market data along with their fear and hope into a blender, they can often have a drastic effect on stock prices.

Rising markets—meaning when stock prices as a whole are rising—typically happen when there’s too much hope or complacency, rising prices, and not enough sellers. Falling markets typically happen when there’s too much fear or panic, falling prices, and not enough buyers.

In the late 1990s, stock share prices for Internet technology companies skyrocketed and the tremendous excitement generated in the media lured more and more investors into the action. Stocks doubled and tripled in just a few months.

The fear of being left behind, coupled with the greed generated by above-average gains, eventually created what’s known as a speculative “bubble”—prices at levels that were unsustainable. As many traders have learned

• 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 is subject to TD Ameritrade review and approval. Please read [Characteristics and Risks of Standardized Options](#) before investing in options.

over the last decade, bubbles eventually burst. What usually follows is a sustained decline in stock prices, known as a “bear” market.

Stocks went through a **bear market** from roughly 2000 to 2002 after the tech bubble burst. A similar bubble developed in housing prices in the mid-2000s. Speculative bubbles have a long history and keep happening, even though traders are well aware of how they work and their potentially negative long-term effects. Market conditions may be constantly changing, but one thing that never seems to change is human nature.



TRADER JARGON

Bull market—A rising market. A trader who is “bullish” is speculating that stock prices and the market overall will rise.

Bear market—A falling market. A trader who is “bearish” is speculating that stock prices and the market overall will fall.

Long stock—This refers to when you own company stock. Simply put, when you buy shares of stock for your trading portfolio, you’re long stock.

Short stock—Yes, you can potentially make money on stocks that are going down. Shorting allows you to sell shares you don’t already own (borrow, really) at a higher price, and at some future point, you buy the shares back at a hopefully lower price. Shorting stock is not a strategy for an inexperienced investor, and can present unlimited risk. But it’s important to understand how it works and how it can be used in certain market conditions.

Options—Contracts that are listed on an exchange. When bought or sold, options give the investor the right or obligation to buy or sell a security or other asset, known as the “underlying,” at a certain price. An option is a type of derivative investment because it derives its price in part from the underlying.

financial, health care, consumer staples, utilities, and technology, among others.

EXPLORE YOUR OPTIONS

Once you’ve grasped the foundation of trading stocks, the next step in your learning curve is equity **options** (options on stocks), which, if you’re qualified, you can trade in your stock account as well. In a word, options are contracts to buy or sell stock and other instruments for a specific price at a later date. That’s the simple definition. The tricky part is wrapping your head around how options are priced, traded, how they can make you incur a potential profit or loss, and the risks involved when you’re trading them. Don’t worry, you’ll be getting a heavy dose of options education in chapter 7. For now, just remember that options can incur a significant level of risk and aren’t suitable for everyone.

SWIMMING GOGGLES REQUIRED

In the years following the crash of 2008–2009, the market bounced back, only to reach all-time highs in the Dow and the S&P 500. During such times, as a new trader, you can feel all kinds of things. You might worry that the market will fall again. You worry you’re on the sidelines and not buying stocks and getting a piece of the current rally. You feel the rush of maybe stepping in and buying at good prices should the market in fact fall. But then of course the market might keep rising. Or start a crash and hit new bottoms. In a word, you just never know. The fear of “missing the boat” during a rally can be as dangerous as the fear of losing money with falling markets. Both can create inertia and devastating consequences.

THE POINT IS THAT FOR AS LONG AS YOU trade, you’ll never stop being a student of the markets. You’ll be schooled in human psychology, mathematics, statistics, history, and to some degree, even art. Your success won’t be measured by how well you perform on a particular trade, but rather how well you perform over time.

● HOW TO TRADE A STOCK

MOVE IT OR LOSE IT

Now that you know a bit more about the stock market, it's time to learn just how the rubber meets the road.

The trading info here pretty much rocks and will give you a great start. But it won't make a bean's difference to your bottom line until you actually buy and sell a stock. And to do that yourself, you need a trading platform, such as thinkorswim® (Figure 1, next page).





Now, despite all knobs you can turn, thinkorswim is not as daunting as it might seem. And the row of numbers at the top are going to be some of the most important you'll need to keep track of. So here's a handy table:

As for which buttons to push, when you're ready to buy shares of stock:

- Click once on the ask price
- You'll see the order populate in the ORDER ENTRY screen at the bottom of the page. From there, you can change the number of shares (QTY), the price, and the type of order (i.e., market or limit order, covered in the next chapter).

TRADING ON MARGIN

Just when you thought you had it all figured out, there's a little something called

"margin." Buying on margin means your broker (or online broker) is willing to lend you money to buy stocks up to a certain amount based on the equity you hold. When brokers lend money, they use cash and stocks you currently hold as collateral.

If you open a margin account, say, with \$10,000, your online broker might lend you another \$10,000 in cash so that you can purchase \$20,000 worth of stocks. The potential benefit of a margin account is that you are leveraged—meaning you can control more stock overall than you could if you didn't have margin. This allows you to potentially realize a larger return if the stock you bought rises in value. On the other hand, if the stock drops in value, your losses will be magnified and could involve more money than you started with.



Figure 1: Your Trading Platform. You can't place a trade without it. Good thing thinkorswim® has you covered. *For illustrative purposes only.*

TERM	DEFINITION
Last X	The last trade price for the asset (or last calculated value for an index), and the name of the exchange (X) that posted the trade.
Net Chng	The change in the last price since the close of the previous day. This value only updates during regular U.S. trading hours.
Bid X	Bid price, which is the published price and the exchange (X) publishing that price. This shows what someone is willing to pay for the asset.
Ask X	Ask price, which is the published price and the exchange (X) publishing that price. This shows the price for which someone is willing to sell an asset.
Size	There are two numbers here. The first is the number of shares X 100 that the bid price represents. The second is the number of shares X 100 the ask price represents.
Volume	The total number of reported shares traded for the day.
Open	The market opening price of the asset.
High	The high price of the day (market hours only).
Low	The low price of the day (market hours only).

SIZE MATTERS

How much you invest per trade (what's called your "position size") could have a major impact on your long-term success as a trader. Too large a position, and you could wipe yourself out. Too small, and you might not move your profit needle. When figuring out position size, there are a few things to keep in mind.

1. Be consistent.

Every trade carries a certain amount of risk. You'll learn as you go what types of instruments carry the most risk.

Above all, try not to cherry-pick the risk on a given trade by allocating more or less risk based on gut instincts. And don't "double down" after a loss, meaning don't wager more, or buy more stock, or take on more risk for the next trade to make up for that loss. This isn't gambling. It's trading.

2. Understand the difference.

Actual risk and the capital

you trade are two very different things. Of course, you should never risk more than you can afford to lose. But with defined-risk trades (again, lessons to come), your goal is not to lose any more than what you define in advance and is within your comfort zone.

3. Scale in, scale out.

Build a stock position over time if you feel strongly about it. If you like a trade, and want to build a large position in it, start with say, 25% of the capital you're willing

to commit to the trade. If the trade starts to perform well, you can increase the position's size an additional 25% until you reach your goal. Once your profit target, or stop loss (see Order Types, next section), has been hit, you'll exit the entire trade. If the trade went the wrong way from the start, you will exit at a smaller loss than had you invested the entire position from the beginning.

HOW TO PLACE A BUY STOCK ORDER

Buying a stock in thinkorswim only takes three steps from the Trade page.



1. Enter the Order

- Type the symbol in the upper left box and press <Enter>.
- Click on the ask price of the stock you want to buy. That will open up the ORDER ENTRY TOOLS screen, with the information on the trade already populated.

2. Adjust the Order

Here you can adjust the quantity of the order, as well as the price, among other things.

3. Confirm and Send (twice)

When you're set, click Confirm and Send. This brings up your "order ticket" (in lay-speak, it's the "Are you sure you're sure?" screen). After your order ticket opens up, double-check the details in case you hit a wrong key—i.e. buying 1,000 shares when you intended 100. From here, you have three options:

- Click SEND if you're happy.
- Click EDIT if you're sad and want to change the order.
- Click DELETE if you have cold feet and want to cancel the order.

Once your order is filled, you'll hear a little chime that seems to come out of nowhere, and a confirmation box in the upper left-hand corner of your screen will pop up to let you know how many contracts were filled and for how much.

The screenshot shows the thinkorswim interface. Step 1 highlights the entry of the symbol 'MNKY' and the selection of the ask price '31.40'. Step 2 highlights the adjustment of the quantity to '+100'. Step 3 highlights the 'Confirm and Send' button.

This dialog box provides a summary of the order: Account D-10227671 (margin), Order Description BUY +100 MNKY @31.63 LMT [TO OPEN], Cost of Trade including commissions \$3,163.00 + \$9.99 = \$3,172.99 (Per Share Commission), Buying Power Effect (\$1,584.50), Resulting Buying Power for Stock \$167,007.00, and Resulting Buying Power for Options \$83,503.50. Buttons for QUEUE, EDIT, DELETE, and SEND are visible at the bottom.

For illustrative purposes only.

- ORDER TYPES

SIT. STAY. GOOD CHAPTER 3 TRADE

When you trade, you're not just trading a stock. You're trading a "position." And there are all sorts of ways to place orders to open and close those positions.

Stop order. Trailing stop limit. Market on close. Contingent orders. There are more than 20 different trading "order types" available on the thinkorswim® platform. These are all the ways in which you can tell the trading platform that you'd like to have an order executed. Some are more complex than others, and you might believe that the more complex the trade, or the order, the more "professional" or useful it is. Right? Well, sometimes yes. Sometimes no. The key is to understand how these orders work before you use them in live trading.



THE ESSENTIALS

All orders can be seen as variations on two basic themes: market orders and limit orders. A market order seeks immediate execution (a “fill”—but not at a guaranteed price). A limit order guarantees a price but not a fill. The other order types attempt to make your life a little easier, but they’re not meant to replace a real person monitoring positions (meaning you). We’ll cover just a few of the more common order types here.

Market Order

With a typical market order, your order is allowed to execute without regard to a particular price. If the order can fill, it will. But in exchange for that certainty, you have no idea what price you’ll get, or what time the order will be executed. In the world of electronic trading, the time until execution will likely be measured in milliseconds after you route, or submit, the order.

Be warned: Unless you’re dealing with **liquid stocks**, market orders are like writing blank checks to the market—rarely a good idea. From time to time, you may need to exit a position at all costs, and using a market order may be appropriate to exit. However, there is no reason to enter a new position, having accepted all the inherent

risks of the trade, and give up control over the price of the order.

Limit Order

With a limit order, you enter the price you’re willing to pay or receive to enter and exit your position. You’ve essentially set your “limit” here. Your order can get filled at a better price, but it can’t fill at a price that’s worse than the limit price you set. That is, you won’t pay more than your limit price when you’re buying, and you won’t sell lower than your limit price when you’re selling. That’s good because it gives you control over the price when the order executes. But the downside is that your order might not get filled if a **market maker** doesn’t want to take the other side of your order. Also note that sometimes, a limit order may only partially fill.

Stop Order

Beyond market and limit orders, probably the most well-known order type is the stop order, aka “stop loss.” A stop order is used mainly to protect against an adverse move in the stock price, and can be either a buy stop (used if you have a short stock position) or a sell stop (used if you have a long stock position).



TRADER JARGON

Liquidity—The ability for a stock (or asset) to be bought or sold without affecting the price. Generally, the greater the liquidity, the easier it is for the stock to be bought or sold.

Market maker—A person or broker-dealer who provides liquidity in a stock and maintains a fair and orderly market. If no one is buying a stock you’re selling, or selling a stock you’re buying, a market maker’s job is to “make a market” for your buy or sell—thereby providing the liquidity.

Figure 1: Essential order types.
There are eight order “types” in the ORDER ENTRY screen, some of which ensure fills, price, or stop you out before things turn ugly in a trade gone bad. For illustrative purposes only.

The screenshot shows the TD Ameritrade Order Entry screen for stock MNKY. At the top, there are tabs for Monitor, Trade, Analyze, Scan, MarketWatch, Charts, Tools, Help, and a menu bar with Investools and OnDemand. Below the tabs, there's a navigation bar with All Products, Forex Trader, Futures Trader, Active Trader, Pairs Trader, Company Profile, and market data for MNKY (Last: \$31.40, Change: -\$0.361, NASDAQ, B: 31.57, S: 31.40, A: 31.63, L: 31.40%).

The main area displays the Underlying and Option Chain. The Option Chain table shows call and put options for July 13 and August 13 expiration dates. A callout bubble labeled "Order Types" points to a dropdown menu in the bottom right corner of the screen, which lists the following order types:

- MARKET
- LIMIT
- STOP
- STOPLIMIT
- TRAILSTOP
- TRAILSTOPLIMIT
- MOC
- LOC

At the bottom of the screen, there are sections for ORDER ENTRY TOOLS, ORDER ENTRY AND ORDER QUEUE, and ORDER AND STRATEGY BOOK. The ORDER ENTRY AND ORDER QUEUE section shows a single order entry for a BUY order at +10 for MNKY on AUG 13, 31 CALL. The ORDER AND STRATEGY BOOK section shows orders for ALL.

If you were long 100 shares of XYZ with a price of \$50, you could enter a sell stop order at \$48. If XYZ drops to and trades at or below \$48, the stop is triggered and routes a market order to sell 100 shares of XYZ.

Because it's a market order, there's no guarantee of price. Sometimes stock prices "gap" higher or lower at the open of trading at 9:30 ET, meaning they jump straight to a distant higher or lower price, without ever trading at the prices in between. Now if XYZ gaps open below \$48, the stop order will be triggered, but the price where you sell XYZ could be much lower than \$48.

Bear in mind that while stop orders are nice to have in place in case you can't be watching the market every second, they suffer from two flaws:

- They have a built-in market order that triggers, which assumes all the uncertainty previously described.
- They don't protect you from "gaps" in the market from, say, opening prices that are below your stop price. Since a trade never actually occurs on the way down at the stop price you set, your stop triggers at the first trade anywhere below your stop price.

Stop Limit Order

An extension of the stop order is the stop limit order, which triggers a limit order when the stop price is hit. If you set a stop limit order for 100 shares of XYZ with a \$48 stop and a \$48 limit, and XYZ drops below \$48, the limit order to sell the 100 shares at \$48 will be routed. Because it's a limit order, there's no guarantee you'll be filled, and XYZ could



keep dropping and dropping. In practice, you might set the limit part a bit away from the stop order.

To help with this conundrum, with a stop price of \$48, you might make the limit price \$47.90. That way, you have a somewhat better chance of getting filled on a limit order when the stop is triggered. While stops, and stop limits, can help to reduce losses, they can't really protect profits if the stock goes up and comes back down.

THE NOT-SO ESSENTIALS

While these orders aren't as crucial as the previous list, they make your life easier, and give you some bragging rights when they trigger, since you won't be around to see it happen.

OCO—"One Cancels Other"

Beyond the specific order types is the OCO ("one cancels other," Figure 2). If one of the orders in the group is filled, the others will be canceled. It's usually a combina-

WATCH IT!

Learn more about placing **stop and conditional orders** on thinkorswim by watching the Learning Center videos.

Stop orders:
<http://bit.ly/tosstoporder>

Conditional orders:
<http://bit.ly/tosconditionalorder>

ORDER ENTRY TOOLS

ORDER ENTRY AND ORDER QUEUE

ORDER ENTRY ORDER QUEUE

Spread	Side	Qty	Symbol	Exp	Strike Type	Link	Price	Order	TIF	Exch...
STOCK	BUY	+100	MNKY			STOCK	31.63	LMT	LIMIT	DAY

Advanced Order: OCO

Advanced Order: Single Order

Advanced Order: Blast All

Advanced Order: 1st Irgs Seq

Advanced Order: 1st Irgs All

Advanced Order: 1st Irgs OCO

Advanced Order: 1st Irgs 2 OCO

Advanced Order: 1st Irgs 3 OCO

Advanced Order: OCO

Mid 31.60 31.63 Net Delete Confirm and Send

Orders: ALL <>> Cancel Menu

Figure 2: One cancels other orders allow both a buy order and sell order to be placed simultaneously. For illustrative purposes only.

Create Order

Base Order:
Trade: MNKY

SELL -100

Time in Force: DAY
 EXTENDED HOURS
 GTC
 GTC+EXTENDED

Price Rules:
LIMIT LIMIT Price: 35.03
LIMIT Linked to: MAN

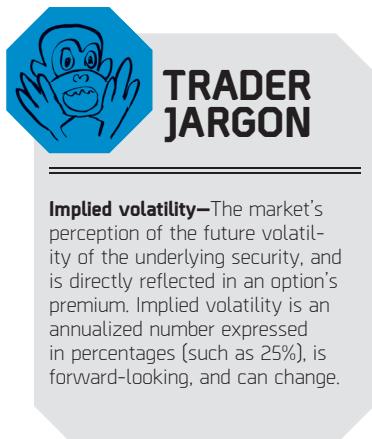
Order Conditions

- Submit Order at Specified Moment Submit Order at: 6/5/13 17:52:20
- Cancel Order at Specified Moment Cancel Order at: 6/5/13 17:52:20
- Submit at Specified Market Condition

Submit when at least one of the following conditions is met. Enter up to 3 market conditions.

Symbol	Method	Trigger	Threshold
DJX	MARK	BELOW	150

Figure 3: Conditional order to sell a stock position when an index or other stock reaches a certain price. In this example, you would be (1) selling 100 shares of MNKY stock when (2) the DJX index trades below 150. *For illustrative purposes only.*



tion of different limit, market, stop, and other orders.

Taking the OCO one step further, you can create an order to buy 100 shares of stock, and simultaneously create an OCO that will trigger when you execute the buy. It's called a "first triggers OCO," because the execution of the first order (the buy) triggers that OCO with the limit order to sell, and the sell stop.

Conditional Order

Conditional orders have to be triggered by an event before the order is actually routed, i.e., a stock hits a certain price, or **implied volatility** reaches a certain level, or a technical study gets to some value. Also known as "contingency orders," these can be particularly useful when you're trading options as a stock replacement.

For example, if you're buying a stock because you think the market is going higher, then the speculation is really on the market price itself (Figure 3). So, it would stand to reason that you might want to exit the trade based on the price of the market, particularly if the stock moves against you. You can choose for that conditional order to route a limit order or a market order when that condition is met. The thinkorswim platform

gives you a lot of flexibility. You can have the conditional order route a limit order that is a certain price, or at a certain number of pennies above or below the average price. Used properly, that may help you get the order filled.

SO NOW THAT YOU'RE ARMED with this information, which

orders do you use? The fact is that professional traders are fully engaged in their trading. They work limit orders trying to get a better fill. Or they cancel orders and put in new ones. And they almost always use limit orders because it gives them more control. As such, limit day orders make up the majority of the effective trader's executions.

Just remember, there's really no such thing as a "perfect" trade, nor is there any fancy order substitute for actively monitoring your positions. It's right about the time when you think you've outsmarted the market that your fool-proof, fully automated system could fail.

- Supporting documentation for any claims, comparison, statistics, or other technical data will be supplied upon request. The information contained here is not intended to be investment advice and is for illustrative purposes only.

HOT OR NOT?

(BIG NUMBERS &
SEXY CHARTS)

4 TECHNICAL
ANALYSIS

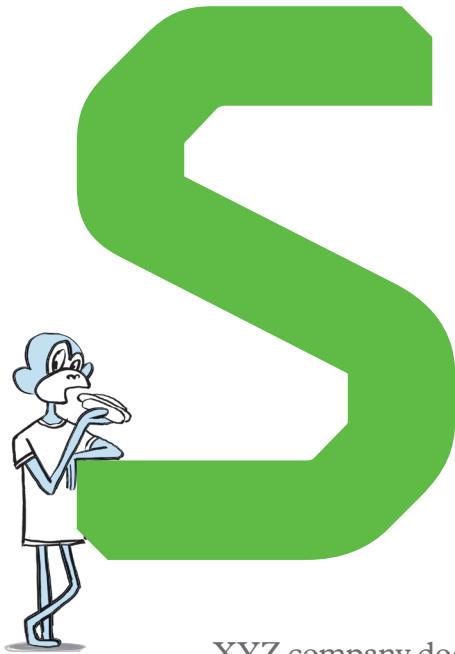
5 FUNDAMENTAL
ANALYSIS (MICRO)

6 FUNDAMENTAL
ANALYSIS (MACRO)



201

THE ART
OF ANALYSIS



tock “research” has traditionally been synonymous with “fundamental analysis”—an approach that tries to determine a company’s financial strength in order to better forecast its stock price. For instance, if the current share price of XYZ company doesn’t reflect the company’s earnings growth potential as modeled by fundamental analysis, and if XYZ is deemed to be financially sound, then shares are said to be “cheap.”

However, today’s world offers unique challenges. As market volatility increases, and “long-term” investors become increasingly focused on short-term market gyrations, you could find yourself picking the right stock at the wrong time. In other words, as a trader, it’s not just a question of *what* to buy, but *when*.

Enter technical and fundamental analysis:

Technical analysis focuses on stock price momentum. It assumes that all the data you’d find in fundamental analysis (see below) is already priced into a chart up to that moment. Therefore, historical price patterns, momentum indicators, and charting trends all come into play. In essence, using price charts, technical analysis gathers up the quantitative data of traders’ buying and selling behavior to gauge future price movements.

Fundamental analysis traditionally focuses on the financial health of a company, including markers like earnings, dividends, and price-to-earnings (P/E) ratios. However, the numbers that are typically important to traders are more “macro” in nature—news-driven events that create short-term reactions. These might include company press releases, earnings announcements, shareholder meetings, analyst reports, and various government and economic data releases that attempt to project the broader economy’s strength. But for the “micro” fundamentalist trader in you, there’s also a way to use traditional indicators, as we’ll show you in chapter five.

Neither technical nor fundamental analysis is a perfect science. And over time, it’s highly likely you will end up merging elements of both into a system that works for you. In his classic *The Art of Contrary Thinking*, the famous contrarian Humphrey Neill said that “the crowd is right during the trends but wrong at both ends.” At market tops, for example, the economy is often in excellent shape, with GDP growth and corporate earnings growth generally accelerating. And technical analysts may be equally enchanted with the market, chiming in with “nothing is as bullish as a market that continues to climb to all-time highs.” It’s true. Until it’s no longer true.



● TECHNICAL ANALYSIS

READING THE TEA LEAVES

Can charts predict the future? Of course not. But they can give you an idea of a stock's momentum right now. For a trader, that's good enough.

Question: How do you know when a stock will stop going up?

Answer: When it starts going down.

A simple guiding precept of technical analysis is “the trend is your friend.” Yet, what constitutes a trend, and who’s trading it? Is it the short-term trader tracking 60-minute trends? Or is it the longer-term

trader tracking six-month trends?

Trends reverse. And while the trend can be your friend, it’s important to recognize when the probability of a trend reversal may hint that it’s time to look for an exit. A true “technician” will attempt to exit losing trades long before they present a serious danger, because weak stock price action compels the technical analyst to close out long positions.

Learning about stock price behavior starts with looking at a price chart. If you’re new to reading charts and technical analysis, it’s easy to become overwhelmed with the many chart types and the bells and whistles that go inside them. Let’s narrow the choices to the three most common, and we’ll examine the more popular techniques traders apply.

LINE CHARTS

Perhaps the most easily constructed price chart is the line chart, which plots a single line that connects all of a stock’s closing prices for a given time interval (see Figure 1).

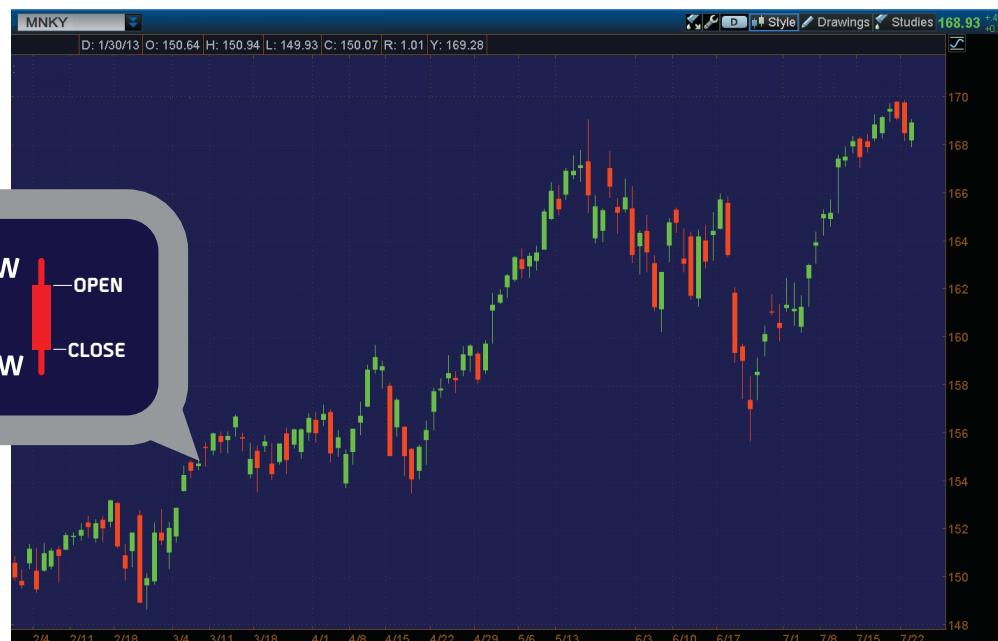
Figure 1: Daily line chart. For illustrative purposes only. Past performance does not guarantee future results.



Figure 2: Daily bar chart. Anatomy of a price bar. Typically, each bar on the chart represents the open, high, low, and close price for the period being observed (i.e. day, week, month, etc.). *For illustrative purposes only. Past performance does not guarantee future results.*



Figure 3: Daily candlestick chart. Anatomy of a candlestick chart. *For illustrative purposes only. Past performance does not guarantee future results.*



WATCH IT!



Once you've read through this chapter, check out the thinkorswim Learning Center for a montage of **charting** vids and articles.

Go to:
<http://bit.ly/tlccharting>

This chart is simple to follow. And because it only plots a single data point (the closing price for the period), you can more readily spot the overall trend. However, it's also limiting because you aren't getting the full picture of the range in prices that occurs during each period, which can give you clues as to what is happening within the trend.

BAR CHART

The bar chart is another method of chart-

ing price activity (see Figure 2).

The bar chart helps you examine the range from one bar to the next, so you can easily see the bars' size increase or decrease. Notice how the ranges of the bars on the chart in Figure 2 expand and contract between longer periods of high and low volatility. As the market becomes more volatile, the bars become longer, and the price swings wider. As markets become quieter, the chart will contract into shorter bars.

CANDLESTICK CHARTS

A variation of the bar chart is called the candlestick chart (Figure 3). Candlesticks are unique because they display either bullish or bearish sentiment for the time interval they represent, depending on whether the stock closes higher or lower than the open. The wide body of the candlestick represents the range between the opening and closing prices of the time intervals, while the high and low are called the wick, or shadow. The candlesticks are typically color-coded to mark bullish advances with a white or green body, and declines with a dark or red body. See Figure 3 for a closeup view of a candlestick.

Notice in Figure 3 how prices move in a trending market. In a normal bull market, you'll typically see more clusters of green

Figure 4: Charts help visualize trends and mark points of support and resistance. As you can see from the red arrows, stocks that move higher over a range of time are essentially in uptrends. Stocks that move lower over a period of time are in downtrends. *For illustrative purposes only.*



bars than red bars (e.g., April to May), while the reverse is true for a bear market (e.g., mid-May to June). Such combinations of these bars in succession help to make up patterns that the trader may use as entry or exit signals.

SEEING TRENDS, SUPPORT, AND RESISTANCE

It's one thing to know what a chart is. It's another to actually read one.

Support. This is a price level that serves as a “floor” for stock prices, where a downward-trending stock stops and reverses course. At some point, sellers will stop selling, buyers will take control, and the stock will start to rise. At the inflection point, the stock puts in a low price, which is called “support.”

After a rally, should the stock reverse course again and come back down to test the level of support, it will likely require more conviction (i.e., volume) by sellers to penetrate this level. If the stock does not penetrate support, this only strengthens the level and may provide a good indication for short sellers to rethink their positions, as buyers will likely start to take control.

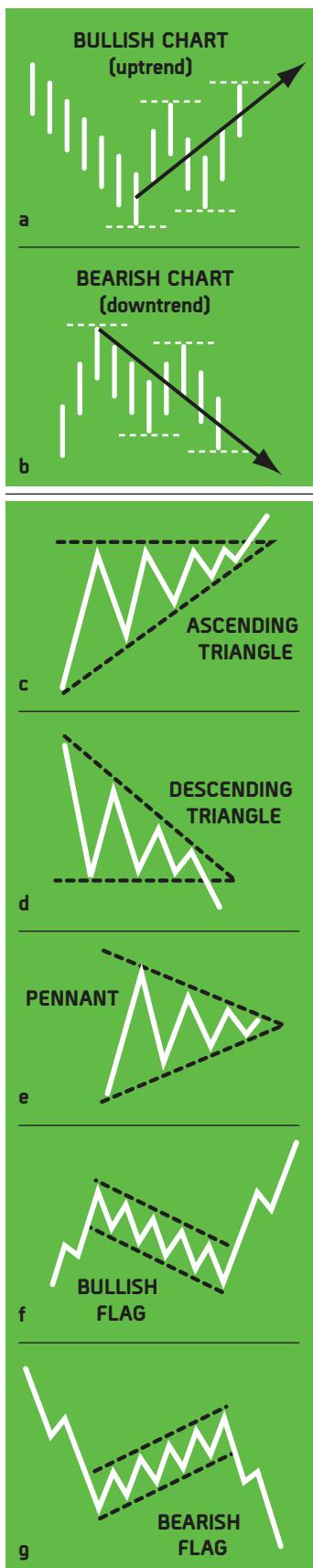
Resistance. The counterpart to support, resistance is a price level that acts as a ceiling for stock prices at a point where a rallying stock stops moving higher and reverses course. At this point, buyers will need more conviction to penetrate this level in future rallies.

It's important to understand that support and resistance are essentially psychological constructs. But keep track of them, as they can be valuable information for your strategy and trading plans.

REVERSALS

Within a chart, you'll find certain repetitive patterns that provide clues to help you determine where a potential new trend begins and ends, and thus possible entry and exit points for your trades.

Look for at least two confirming stair steps in the opposite direction of a prior trend (Figures 5a and 5b, next page). If a stock has been trending down, and suddenly changes direction (known as a “reversal”), don't just label it a new uptrend yet. Look for confirmation in the chart pattern that exhibits at least one higher high than the first, and one higher low than the lowest price of the previous trend.



BREAKOUT PATTERNS

Then there are a few common “breakout” patterns that may provide useful entry and exit points when they surface within the trend. Such a pattern typically exhibits a tightening range of price action over time, followed by a breakout in price one way or the other, which resumes the previous trend or begins a new one.

Patterns with names like “flags,” “Pennants,” and “triangles” are all common indicators that traders consistently use to generate potential buy and sell signals (Figure 8).

WHERE ARE WE?

Is the stock you want to trade moving up or down? Who’s doing the buying or selling? Where in the trend is the stock right now? When is a good time to get into the trade?

These are all questions that chart indicators attempt to answer. Technical traders typically combine multiple indicators, as individual indicators alone can provide many false signals that could lead to poor entries and big losses. A powerful strategy combines indicators, signaling potentially harmful trades by giving conflicting signals.

Where to start? Learn how volume and moving averages work together with price action, and add or subtract indicators as you develop your own system.

The chart in Figure 6 is a good example of a daily chart that uses volume and moving averages with price action, and shows how a trader might determine support and resistance levels (blue dotted lines), and/or breakout patterns (red dashed lines). The volume indicator can be seen below the chart, and two moving averages (10-day and 30-day) are drawn over the colored bars inside the chart.

On the left side, volume started accelerating (diagonal red line) before the blue shorter-term moving average crossed below the pink longer-term average. By the time this “crossover” occurred, a new downtrend

was in place, providing stronger clues to the likelihood of that trend’s continuation.

Another defining moment for chartists is when stocks break out of “basing” formations such as the pennant (red dashed lines). When two indicators confirm the same read, it’s a more powerful signal. Just before the stock broke out of the pennant to the upside, the short-term moving average crossed above the longer-term average, thereby providing stronger confirmation of a new uptrend.

On the chart’s right side, the stock has been declining on a series of lower lows and lower highs, and is headed for the support level suggested by the blue dashed line. Since the chart shows the stock is halfway between support and resistance levels, a trader might wait for an entry point should the stock fall through the “long-term” support level on heavier than normal volume.

PUTTING IT ALL TOGETHER

Traders can use several types of price charts to navigate the markets, plus an endless combination of methods to trade each of those markets.

When developing chart preferences, consider what you’re getting. Good information helps you make better decisions. Too much information can create indecision. Too few indicators can lead to poor choices and a lot of “false” signals, whereas too many can lead to “analysis paralysis” where a trading signal is never given.

There are also “price patterns” you can interpret from chart data to help identify potential stock breakouts or consolidations.

The idea here is to keep things simple. Finding the right balance is different for every trader, so it’s important to start with the basics and work up to using the indicators and patterns that make the most sense. (See “A Common Setup,” page 25.)

Simple Moving Average

Moving averages draw information from past price movements to calculate their present value. Because they rely on past data, they always lag the market. This means moving averages show trend changes only after the market has begun to decline or rise.

Figure 5a-b: An uptrend often begins with a series of higher highs and higher lows, while a downtrend often begins with a series of lower highs and lower lows.

Figure 5c-f: Some common breakout patterns. For illustrative purposes only.

Figure 6: Sample of a technician's chart palette—colored bar chart with marked support and resistance levels, multiple indicators, and familiar breakout patterns. For illustrative purposes only.



WATCH IT!

To some step-by-step videos on how to set up and use thinkorswim charts, go to

Charts Tab

<http://bit.ly/toscharts>

Chart Studies

<http://bit.ly/toschartstudy>



A simple moving average is calculated by averaging closing prices over a specific time period. For example, to apply a 20-day simple moving average to a stock, you take the closing prices for the past 20 days (including the current day), add them together, and divide the sum by 20 (the number of days you are analyzing). This produces the arithmetic mean for the past 20 days' closing prices.

Many investors use the moving average

to provide entry and exit signals. For example, they may buy when the price crosses above the moving average, or sell when the price crosses below the moving average, or if they were short when the stock is below a downtrending moving average, they may exit.

Moving Average Convergence/Divergence (MACD) Histogram

MACD is a momentum indicator that is also used to evaluate trending character-



A COMMON SETUP

With over 200 indicators in thinkorswim, it will be tempting to pile them on to make your charts look prettier. But since the goal is to assess the trend and where you think the stock is within that trend, you may want to start with a few basics, such as using a simple moving average (SMA), moving average convergence/divergence (MACD), and slow stochastics. See the chart at right.

- **SMA** = Helps determine if the stock is in a bullish trend or bearish trend.

- **MACD** = Used to help confirm a trend and where in the trend a stock might be.

- **Stochastics** = Helps determine the momentum behind the current position in the trend.



For illustrative purposes only.



HOW TO SCREW UP A CHART

WITH SOME PRACTICE, you'll find technical analysis easier to use as you become familiar with trend-lines, chart patterns, and your own set of indicators that work for your trading style. However, no trader is immune to mistakes. If you find yourself doing any of the following, you could be going down that slippery slope that traders take when they start assuming they're smarter than the market.

1. Using Too Many Indicators

Indicators can pretty up a chart, but tracking too many will produce few tradable signals, and keep you on the sidelines—analysis to the point of paralysis. Keep it simple, and try to use just three indicators to start with, such as volume, a moving average, and

some type of oscillating indicator like MACD or stochastics to help determine where in a trend a stock might be. (See the sidebar "A Common Setup.")

2. Ignoring Your Signals

When you've found the right mix of signals, but you choose to ignore them, you've shifted from trading decisions that are mechanical and backed by logic and sound reason to trading decisions based on hope or fear or an amorphous "gut instinct." Your goal is to discover consistent patterns in your comfort zone, backed by sound risk management. Rinse. Repeat. Rinse. Repeat. When you shoot from the hip, despite what your indicators are telling you, emotion replaces reason—and that's not a good thing.

3. Ignoring Volume

Money moves a stock, but volume fuels it, and it's a valuable chart-pattern confirmation tool. In a rally, for example, increasing volume is usually bullish. Declining volume is considered bearish. If you're increasing your risk in a bullish market on declining volume, you're probably not paying attention, and could be in for a rude awakening.

Choose any well-known chart pattern such as the wedge, flag, or pennant. Each one has a volume signature of its own that's important to understand. In a rising wedge, for example, volume declines over the length of the pattern and that's considered bearish (Figure 7). Ignore volume and it could cost you plenty.

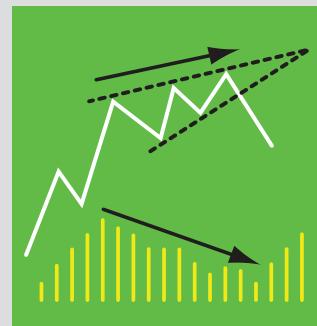


Figure 7: A bearish wedge in an uptrend (white line) will typically have declining volume (yellow lines) before a breakout occurs on heavy volume. For illustrative purposes only.



MORE ON CHARTS

For everything under the sun on charting and indicators, visit the Charts section at the **Learning Center**

<http://bit.ly/tlccharting>

istics of a security. MACD calculates two moving averages: a shorter average and a longer one. To plot the MACD line, the difference between these two averages is found. MACD is then smoothed with another average (9-period EMA, by default) to form the signal line. The interaction of MACD and its signal line can be used for trend prediction: when MACD line is above the signal, uptrend can be expected; conversely, when it is below, downtrend is likely to be identified. For your convenience, these two lines are plotted along with a histogram that represents the difference between their values.

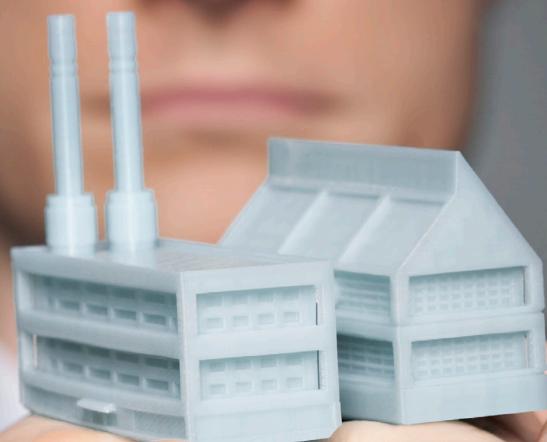
The MACD histogram is a study derived from two MACD lines. Signals from the MACD indicator can tend to lag behind price movements. The MACD histogram is an attempt to address this situation, showing the divergence between the MACD and its reference line (moving average) by normalizing the reference line to zero. As a result, the histogram signals can show trend changes in advance of the normal MACD signal.

Stochastics

The stochastic oscillator is based on the observation that as prices increase, closing prices tend to be closer to the upper end of the price range. In downtrends, the closing price tends to be near the lower end of the range.

The stochastic oscillator is made up of two lines oscillating in the range from 0 to 100. The %K (showing the ratio of differences between the current close and lowest price and between highest and lowest prices) is the main line. The second is the %D line, which is a moving average of %K over a chosen period. A %K line that is crossing a %D line may indicate that the trend is weakening.

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FUNDAMENTAL ANALYSIS (MICRO) •

FINANCIALS EVEN A TRADER CAN DIG

CHAPTER 5

As a trader, if your goal is to embrace short-term opportunities, why use long-term financial indicators to determine stock selection? Well, you might see why if look through a new lens.

On the surface, fundamental analysis appears to be a logical tool for constructing a long-term stock portfolio. However, as we pointed out earlier, for traders, it's not a company's financial numbers that matter right now as much as the perception of what those numbers might mean for the future. So the question on every trader's mind can become, "How will the perception of future earnings impact the stock price in the short term?"

After all, why bother projecting a five-year growth rate when you may only care about what the stock is going to do tomorrow, next week, or next month? But let's look at this through a different lens. When you're trading short-term momentum, certain company fundamentals can help.

will jump a little higher and stabilize at a new price that better reflects its long-term potential. Over time, the stock might continue to rise steadily from there. But for the moment, it's a "tradable event," triggered by a financial number, not a chart.

No doubt traders should consider a listed company's current business model, the trends in that business and related industries, competition, management, financial soundness, and current and past earnings growth. Chances are, you're going to trade the stock of a company you're somewhat familiar with, or at least, you'll probably know what it does. So on some level, certain fundamentals do in fact matter.

Let's look at how you might benefit from studying the fundamentals using a time-saver called the company profile tool in thinkorswim.

Imagine your New Year's resolution is to hit the gym. As a savvy trader, you figure there are millions of other wishful thinkers just like you. And, in all likelihood, they'll be shopping for new workout clothes. So, you look for a sports company that specializes in "performance apparel." You figure that the "best-in-class" retailer selling performance apparel will likely present the best trading opportunities when the market is bullish. And you've narrowed your selection to two sports

Figure 1: The company profile tool. Studying a company's business divisions can tell a story you may not have heard. Just type in a symbol and click a business division in the left bar. Select a forecast measure in the right column and view the data. Or slide the levers to see what your forecasts will reveal. *For illustrative purposes only.*

A PRESCRIPTION FOR THE NEAR-SIGHTED

If a company releases earnings, and reveals to the world that they're growing faster than anyone expected, that's new information that wasn't priced into the stock the day before. In all likelihood, the stock price



- The information contained here is not intended to be investment advice and is for illustrative purposes only.

apparel companies. Both have diversified businesses, so out of the gate, you're looking for certain criteria in the right company:

- You seek a higher concentration of revenue in its performance-apparel division
- You want high margins in the apparel business
- It needs to be trading at a discount to its valuation.

In about 45 seconds, here's how you can use the company profile tool in thinkorswim to help you zero in on what might look like the better opportunity. See "Pulling the Levers" sidebar below for the step-by-step.

THROW OUT THE NUMBERS?

If, however, you don't care about company numbers, and you don't feel qualified to pull levers, there are still plenty of ways fundamentals—and the company profile tool—can help.

- Before Betting the Farm.** Say you discover an exciting new product or industry (think smartphones or solar here).

You research companies that make these products and home in on one of them as a contender to trade. The charts seem to indicate that the time is right for entry, so you pull the trigger—only to learn that the company division that makes the product adds only 3% to the overall bottom line! Oops. It's exactly scenarios like these during your analysis where the company profile tool can help you validate or disprove your assumptions. It can help you better understand how much revenue is attributable to the bottom line from the company's combined revenue drivers.

2. Finding Soldiers. In longer-term position trades, the tool lets you compare "generals to soldiers." First-tier companies (generals) that serve as sector proxies tend to have lower volatility and might not offer the ideal opportunity. However, if you're anxious to be in a sector, you might look for the second- and third-tier companies (soldiers) that have room to grow. Do they have similar business units as the generals, and a similar makeup of those units? Are the growth projections for those units what you'd expect?

The tool is your secret weapon, and can help keep you armed and battle ready.

PULLING THE LEVERS...

1. To access the company profile tool in thinkorswim, click the **Trade tab**.

2. Type a stock symbol in the upper left box. If the fundamentals needed by the tool are tracked in thinkorswim, the "**Company Profile**" button will appear top right of the page. Click it.

3. On the blue vertical bar (Figure 1 left page) on the left of the tool window, click the business division you'd like to analyze.

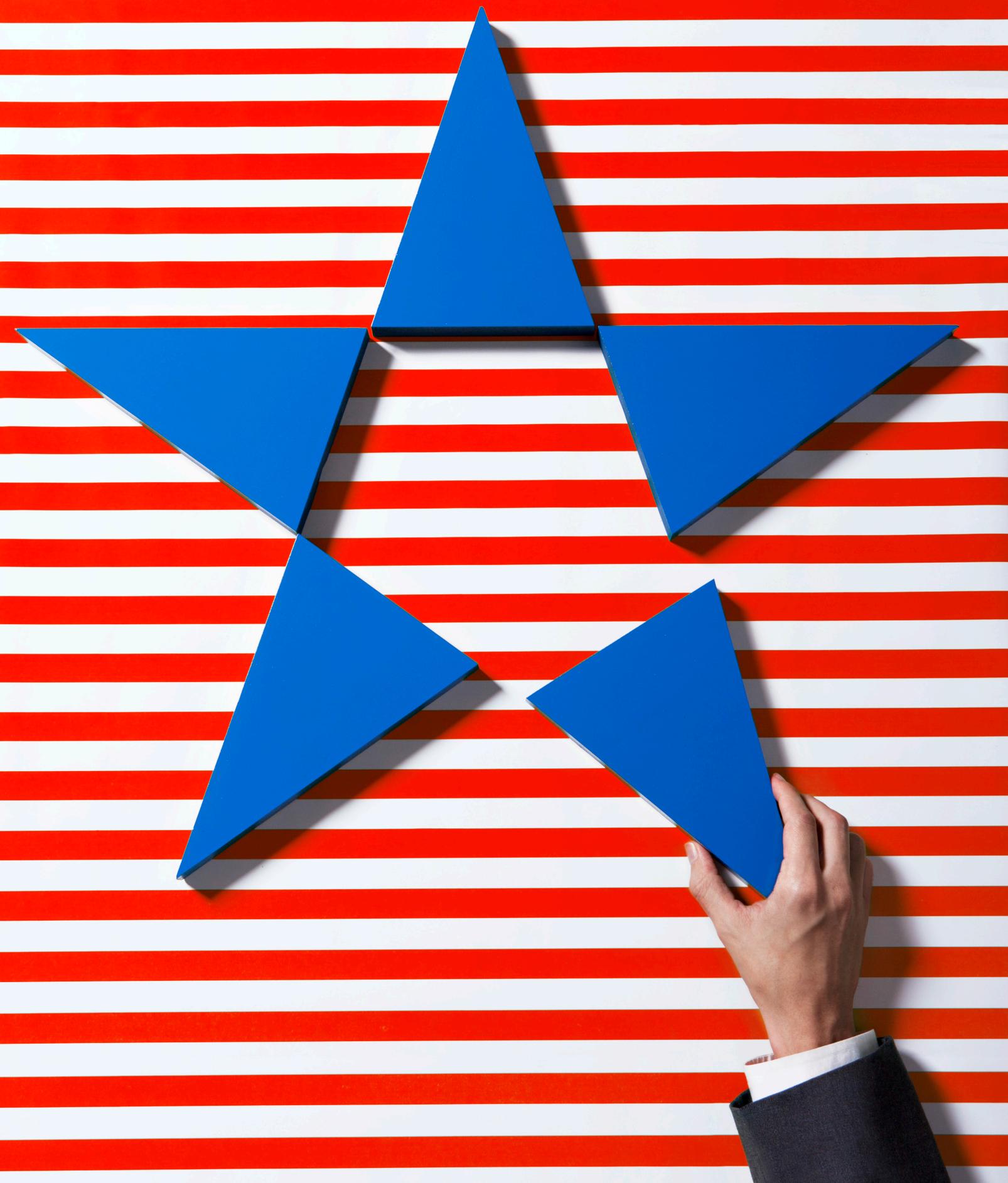
4. Notice the right column of "Most important forecasts for this division."

5. Drag estimates of these forecasts (the "levers") based on your own findings. Say you believe that with increased demand for performance apparel, there'll be a near-term sales spike resulting in greater market share. By moving that lever up slightly, you can see the impact it would have on the valuation estimate.

FINDING DIVERGENCE. When there's a difference between your projections (which you adjusted with the levers), analyst estimates (which you can find on tdameritrade.com), and the current market price, you have found what's called "divergence." And divergence is where you can often discover some great directional trading potential—both to the upside and downside.

HIT THE "BOOKS" GLADLY

With so much great technology in the trading world these days, the idea of market research and informed decisions no longer need provoke anxiety attacks and extreme dread. Think of the company profile tool as the Cliff Notes of the trading world that can easily turn you into a "trading fundamentalist." You'll save yourself countless hours wading through beefy analyst reports, and quickly get the insights you need on a whole lot of companies whose products and services could make you want to profile with joy.





FUNDAMENTAL
ANALYSIS (MACRO)

HOW TO TRADE THE GOVERNMENT

The types of numbers that make traders take notice are those that make markets move. And who better to shake a market than Uncle Sam?

As a trader interested in news events that might drive the markets in the near term, it makes sense to pay attention to the more important economic reports that help us understand how things economically are shaping up (or down). But do those reports provide valuable trading signals, or are they just noise? Whatever your opinion, there's little doubt that the following five economic indicators are among the most highly followed:

1. **Unemployment**
2. **Gross domestic product (GDP)**
3. **Housing**
4. **Manufacturing**
5. **Retail sales/consumer confidence**

Let's examine the merits of the "big five" and score them for relevance as short-term indicators.

1. Unemployment

One of the most popular economic indicators tracked by financial media is the Bureau of Labor Statistics (BLS) non-farm payrolls, new jobs, and unemployment rate report, published on the first Friday of every month.

But how useful an indicator is unemployment for generating buy-and-sell signals? For one, unemployment tends to lag stock prices. Second, the unemployment rate is the result of many revisions—some of which happen a year or more after the fact. In other words, this information was not available to the average retail trader (you) at the time the report came out.

Regardless, big surprises, whether positive or negative, have the potential to move short-term stock prices.

2. Gross Domestic Product (GDP)

GDP is the dollar sum of the value of all goods and services produced in the U.S. It

is calculated from data collected through a wide variety of sources by the Bureau of Economic Analysis and reported quarterly in the last week of the month following the reported quarter. Data is revised in the following months, with annual revisions occurring in July. So what you see at the time is generally not what is shown in historical data or charts.

Similar to unemployment data, surprises have the potential to impact stock prices in the short term, but this data is of limited value to active traders due to revisions and the fact that GDP tends to lag stock prices.

3. Housing

One of the more widely followed housing indicators is the National Association of Realtors (NAR) existing home-sales price index. Here, there are two drawbacks. First, the data is produced by the NAR, whose job is to promote the benefits of home ownership on behalf of its member realtors—which means it is prone to bias. Second, this data is also subject to revisions, making it less useful to traders.

Next is the Case-Shiller Home Price Index, which is a value-weighted index employing purchase prices to calculate changing home prices monthly. Revisions are rare, and the data is valued by market participants—in part because the Case-Shiller Home Price Indices are futures-and-options derivatives traded on the Chicago Mercantile Exchange



MARKET MOOD?

With a market that hangs onto every economic report, how might your peers be trading the current environment? Check out the **Investor Movement Index** (IMX) to gauge investor sentiment.

www.imx.tdameritrade.com

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to manage U.S. housing risk.

Indices that track new residential housing markets include, but are not limited to, instruments such as the Philadelphia Housing Sector Index (HGX), which consists of companies primarily involved in new home construction, development, support, and sales. This allows market participants to track the health of new-home markets.

The U.S. Commerce Department also publishes new-housing permit and start data monthly, which are two metrics that can help traders measure the strength of new housing markets. Housing permits tend to lead housing starts by one to two months. But like many government-produced statistics, they are subject to revisions, making them less reliable for timing your stock market entries and exits.

4. Manufacturing

Undoubtedly, the most widely followed manufacturing index is the Purchasing Managers Index (PMI), published by the Institute of Supply Management (ISM), a non-governmental organization. It is a national index based on data compiled from purchasing and supply executives and covers a wide range of manufacturing businesses.

A reading above 50 indicates an expanding economy; below 50 indicates economic contraction. It's published on the first business day of the month. Although the relationship is not lockstep, the ISM PMI tends to lead stock prices. It also puts in a respectable showing as a stock-trading indicator.

5. Retail Sales/Consumer Confidence

Retail sales data is based on spending surveys collected from retailers across the nation by the U.S. Census Bureau. Revisions are published monthly, two weeks following the report month. The data is revised two months later, and final adjustments are made every March, making this indicator of little value to stock traders except in the very short term.

There are two widely followed consumer sentiment indexes, namely the Conference Board Consumer Confidence Index and the University of Michigan's Consumer Sentiment Index. Revisions for both indices are rare, and surprises have the potential to impact short-term stock prices.

So as a short-term trader looking to seize the moment, you may want to pay attention to some of these "big five" indicators. This certainly isn't an exhaustive list, but since these five seem to make the biggest headlines, you may find them useful trading guides.



HOW TO MARK YOUR CALENDAR

Check out when the reports are coming up in thinkorswim.

1. Click the **MarketWatch** tab
2. Click "Calendar" in the upper menu
3. Click on date where there is an event
4. At the bottom of the page, click on an event to grab the details.

MarketWatch

August 2013

Date	Event
28	Chain Store Sales
29	Equity Settlements
30	Market Focus
31	Merchandise Trade Balance
1	Unemployment
2	Merchandise Trade
3	BoE MPC Minutes
4	Labour Market Report
5	GBP Flash
6	Initial Purchase Applications
7	Producer Price Index
8	ICPC: Merchandise Trade
9	Housing Starts
10	Manufacturing Sales
11	Productivity and Costs
12	Consumer Sentiment
13	4-Week Bill Announcement
14	ICSC: Goldman Store Sales
15	Redbook
16	4-Week Bill Auction
17	52-Week Bill Auction
18	RBA Meeting Minutes
19	Equity Settlements (PPI)
20	Equity Settlements
21	M3 Money Supply
22	Retail Sales (CPI)
23	Business Climate Indicator
24	Unemployment Rate
25	S&P Case-Shiller HPI
26	Event
27	Event
28	Event
29	Event
30	Event
31	Event

Description (click for details)

Unemployment Rate

Consumer Confidence

Manufacturing and mining survey

(PPI)

CPI

**SMALL.
IT'S THE
NEW BIG**

7 OPTIONS
TRADING BASICS

8 VOLATILITY

9 OPTIONS
GREEKS



301

OPTIONS
MADE EZ



ven if you've never traded an options contract, you may have heard a thing or two about them. After all, as a type of derivative, options can be a mysterious and alluring investment to the average person. It's true the naysayers are out there.

But what they typically don't understand is that options were designed to function as a tool for transferring risk from one trader to another.

In fact, options are primarily used in three ways:

Speculation: Anticipating future price movement

Traders speculate on the future price move of a stock, bond, or other asset. The goal of traders speculating with options is to try to earn the highest return possible in the shortest amount of time, using the least amount of capital. Speculation may expose you to greater risk of loss than other investment strategies.

Income: Generating revenue by holding an asset

You may own stock in your portfolio. If so, selling options against your stock is one way to generate passive income.

Protection: Hedging an asset

You buy insurance to protect your home, cars, and health. In the same way, buying options contracts may help "protect" your portfolio. For example, when you purchase a put option, it can help reduce the impact of a stock's future losses.

Whatever your flavor, learning options strategies is one thing. Learning their nuances, and how to manage their risks, is another entirely. So before you trade options, let's get under the hood and see what makes them purr.



● OPTIONS TRADING BASICS

THE ULTIMATE OPTIONS PRIMER

Everything you didn't know
you wanted to know about
options, but were afraid to ask.

Most traders speculate with options because of their leverage. But leverage is a two-way street. While you could potentially earn more for less, on the other hand, with leverage you can also lose more for less because it exposes you to greater risks than other trading strategies. This may not be a big deal when you're trading one contract. But if you trade a whole bunch more than you should just because you have the capital to do so, that's where the trouble starts. So let's start with the basics to set you on the right path.

INTRODUCING CALLS AND PUTS

Calls are options to buy an “underlying” asset, like a stock or an index.

- The buyer obtains the right (but not the obligation) to purchase the underlying stock or index.
- The seller of a call assumes the obligation to supply the underlying asset when the call contract is “[exercised](#).” (See Options Jargon sidebar, next page.)

Puts are options to sell a stock or an index.

- The buyer obtains the right (but not the obligation) to sell the underlying stock or index.

- The seller of a put assumes the obligation to purchase an underlying asset when the put contract is “exercised.”

Now, referring to Figure 1 below, if you were to call in an option order to the Trade Desk, you might say, “I'd like to buy 10 MNKY September 31 calls for \$1.18.” Or you could just place the order online, directly from the thinkorswim Trade screen (Figure 2, next page), which features the “option chain” containing all expirations, strikes, and prices of all calls and puts available on the underlying stock.

Figure 1: Option-Speak. Yes, options have their own language, too. Here's what it all means when placing an order. *For illustrative purposes only.*



Figure 2: Anatomy of an option chain. The Trade page of thinkorswim contains the option chain and all the information you'll need on a stock's options regarding type (calls or puts), price, and expiration—the essentials for choosing an option to trade. *For illustrative purposes only.*



OPTIONS JARGON

In the money (ITM)—An option whose strike is inside the price of the underlying equity. For calls, it's the strike that is lower than the price of the underlying equity. For puts, it's the strike that is higher.

At the money (ATM)—An option whose strike is the same as the price of the underlying equity.

Out of the money (OTM)—An option whose strike is away from the underlying equity. For calls, it's the strike that is higher than the underlying. For puts, it's the strike that's lower.

Intrinsic value—The “real” value of an option, or the amount an option is in the money.

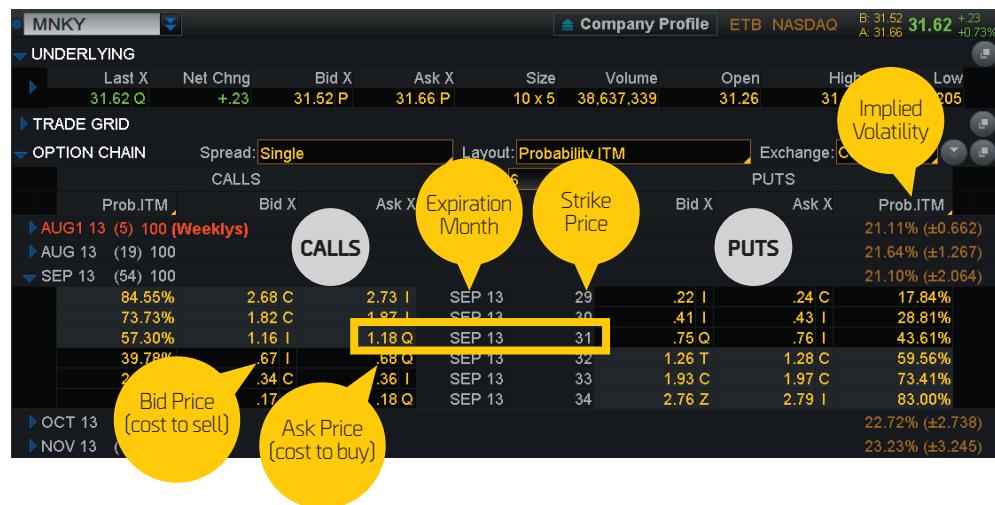
Extrinsic value—The “time” value of an option, based on the number of days to expiration. ATM and OTM options consist entirely of time value.

Exercise—When the owner of an option puts into effect the rights granted by the option. In other words, you would buy or sell the underlying stock the option controls.

Assignment—When an option owner exercises their option, the option seller is required to make good on her obligation to buy or sell a stock.

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

Volatility typically increases when traders are fearful of a decline in stock prices and typically option premiums rise. When traders are more confident that stock prices will rise, typically option premiums drop.



A BIT ON TIME AND VOLATILITY

Shorter-term options (less than 30 days to expiration) have a couple things going for them. First, they're cheaper than an option with more days to expiration. That means as a buyer, you'll have a smaller absolute loss if the stock moves against you (though likely a bigger loss as a seller). Second, if the stock price moves up, the call will probably have a greater percentage increase in value than one with more days to expiration. So, you might ask, why would you ever consider an option with more days to expiration?

For one thing, longer-term options (more than 30 days to expiration) have their advantages, too. First, there's more time for the stock to make a favorable move, particularly if the stock moves against you at first. There will be a greater opportunity for the stock to rise sufficiently and/or recover from any price declines in order for the call to be profitable. You don't want the stock to make its big move the day after your options expire.

Second, an option with more days to expiration will experience less price erosion as time passes, and have a smaller percentage loss if the stock price stays the same or falls. (See the graph to the right to illustrate.)

Changes in **implied volatility** affect options with more or fewer days to expiration differently as well. Longer-term options are more sensitive to changes in implied volatility than shorter-term options. What's important to understand for the moment

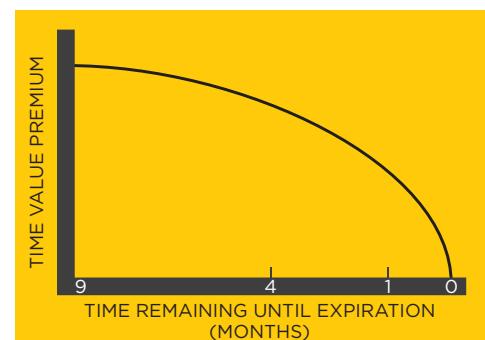
is that implied volatility can move up and down, and can sting if it moves against you.

“THE MONEY”

The strike you buy in relation to where the underlying stock is can make a big difference on a trade's outcome. Whether to buy an “[in-the-money](#)” (ITM), “[at-the-money](#)” (ATM), or “[out-of-the-money](#)” (OTM) call is another decision to make because each call naturally responds differently to changing conditions.

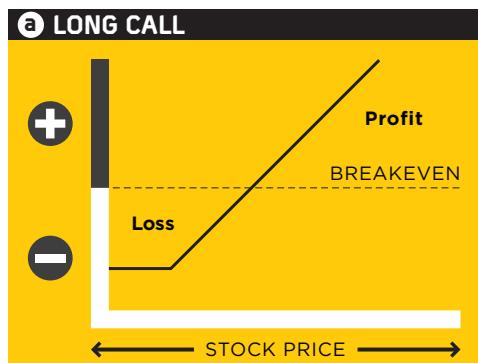
An ITM option acts mostly like a stock position, depending on how far ITM it is. It will be affected less by time and changes in volatility, and more by the stock price moving up and down. An ITM call may require a smaller rise in the stock price to be profitable, but its percentage gains won't be as great as those of an ATM or OTM call.

An ATM option has the greatest uncertainty. It's the most sensitive to changes in a stock price, volatility, and time passing. This



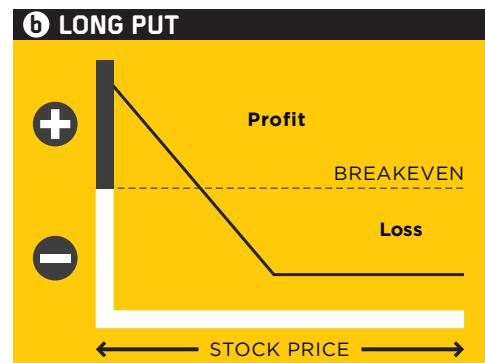
Figures 3a-d: The four primary option strategies. Each of these strategies is designed to profit from the underlying moving in a particular direction. Your choice depends on a few factors, including stock direction, volatility, and time passing. *For illustrative purposes only.*

*Figures do not include commissions and fees.



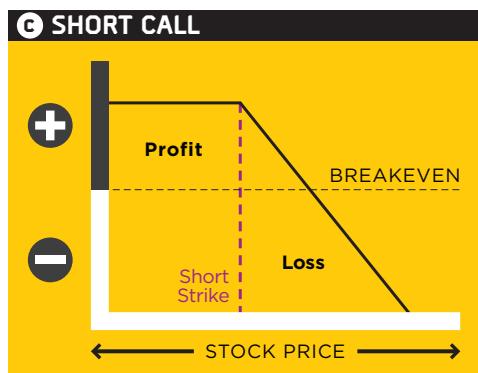
Long 1 XYZ Sep 50 call @ \$2.00

Total Cost	Option premium paid, \$200*
Maximum Loss	Option premium paid, \$200*
Maximum Profit	Unlimited



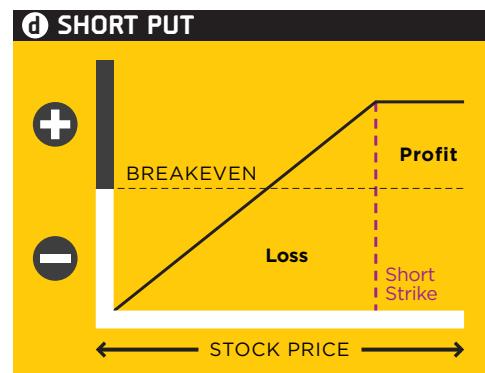
Long 1 XYZ Sep 40 put @ \$1.00

Total Cost	Option premium paid, \$100*
Maximum Loss	Option premium paid, \$100*
Maximum Profit	Strike price minus premium*



Short 1 XYZ Sep 50 call @ \$2.00

Total Credit Received	Option premium received, \$200*
Maximum Loss	Unlimited
Maximum Profit	Option premium received, \$200*



Short 1 XYZ Sep 40 put @ \$1.00

Total Credit Received	Option premium received, \$100*
Maximum Loss	Strike price minus premium*
Maximum Profit	Option premium received, \$100*

can be good or bad. If all your speculations are wrong, the ATM option can potentially hurt you the most.

An OTM option begs for a very large move in a stock price. If you get a big enough move in the stock, an OTM call can deliver a much higher percentage profit than an ITM or ATM call. And if the stock price falls dramatically, the loss on the OTM call will be smaller than on an ATM or ITM call. But remember that a big move in the price is less likely than a smaller move, and OTM options will expire worthless if the move in the stock isn't big enough.

THE BASIC STRATEGIES

Consider the four basic option positions (Figures 3a-d, above):

- Buy call (long call)
- Sell call (short call)
- Buy put (long put)
- Sell put (short put)

Note that while buying calls or puts doesn't obligate you to do something, shorting them does. Shorting a call obligates you to sell a stock at the strike price if you're "assigned" on your option. Shorting a put obligates you to buy a stock at the strike price if assigned. See the table below.

	CALL	PUT
BUYER (LONG)	Right to buy	Right to sell
SELLER (SHORT)	Obligation to sell	Obligation to buy

Within all four strategies, you'll discover trade-offs between your potential risk, the probability of realizing profit, and the size of that potential profit. Generally, the lower the risk or the higher the probability of profit from a given trade, the smaller the potential percentage profit.

As a skilled trader, you'll learn to balance these trade-offs. For example, an option's value is continuously whittled down with time. There's a constant battle between the erosion of your option's value as time passes, and waiting for a favorable move in the stock price or an increase in implied volatility that will raise the value of the option. Therefore, you need to consider the timing and the magnitude of the anticipated rise in a stock price. When you trade options, you accept the interplay of these decisions as a form of speculation.

Let's break each of the four strategies into greater detail.

Buying a call

The long call (Figure 3a, page 39) is the most common and straightforward option

position there is because it's the most like buying a stock, and is used to speculate on a bullish move in the underlying. The long call profits from a rise in the stock's price. Much of what is learned about long calls can be applied elsewhere. Buying a call usually costs far less than it does to buy a stock, and the risk is limited to the premium paid for the option.

The caveat is you have to be confident that the stock price will rise sufficiently before the expiration date of the option, because options expire and stocks don't. You can "sit" on a stock and hope that it will eventually rise in price. You can't do that with a long option. If the stock price doesn't rise enough by a certain date, the call option may expire worthless or with a lower price than you originally paid. So, it's not enough to be bullish on a stock in order to figure out which call to buy.

You may also have to decide, for instance, whether to buy a call with more or fewer days to expiration. The effects of volatility and time passing (discussed in chapters 8 and 9) both have a dramatic impact on the price of an option.



HOW TO PLACE AN OPTIONS TRADE

You won't find the kitchen sink in thinkorswim, but it really does have everything you need to place an option trade. Here are four steps to placing a trade.

1. Enter the Symbol

Go to the Trade page. In the upper left, fill in the box with the stock symbol and press Enter. With the available calls and puts now in front of you, choose the expiration you want.

2. Pick the Strategy

Next, click the ask or bid of the option you want to buy or sell.

3. Adjust the Order

You'll see your long option order at the bottom of the Order Entry section, below the option chain. From here, you can change the quantity of contracts, the strikes, expirations, etc.

4. Place the Order

When you're happy with the order, click Confirm and Send. The Order Confirmation Dialog box will give you one last chance to check the details before you click. If all's good, then hit SEND and wait for a message to pop up confirming when your order has been filled.

1

2

3

4

For illustrative purposes only.



TRADER JARGON

Hedge—A secondary position, such as another option position or the underlying security, used to protect against the potential losses of a trader's primary position. For example, a long put is a type of hedge you can buy to help protect against a stock falling in price.

Buying a put

The long put (Figure 3b, page 39) is a strategy that profits from a drop in a stock's price, and is an effective alternative to selling stock short. To start with, short stock can have high margin requirements, meaning you'd have to have a lot of cash on hand in your account to put up as collateral to place the trade. Long puts have no margin requirements. And unlike short stock, the risk of a long put is limited to just the premium you paid for the option. Strictly speaking, the potential profit on a long put is the dollar value of its strike price minus the premium of the put, less fees and commissions. But it's not infinite. And, like buying a call, time decay and volatility are two factors that can impact the price (and profitability) of the put.

Selling a call

Shorting a call (Figure 3c, page 39) is a bearish strategy with unlimited risk, in which a call is sold for a credit. The strategy assumes that the stock will stay below the strike sold in which case, as time passes and/or volatility drops, the option can be bought back cheaper or expire worthless, resulting in a profit. If you're assigned on a short call before you have a chance to close out the position, you're obligated to deliver the underlying shares at the strike price of the option sold.

Shorting a call without the protection of a **hedge** is also referred to as selling "naked." Therefore, it has limited profit potential in exchange for unlimited risk.

Selling a put

Shorting a put (Figure 3d, page 39) is a bullish strategy in which an unhedged ("naked") put is sold for a credit. And while the risk is technically limited to the difference between the strike price and zero, minus the premium, it's still very high. The strategy assumes that the stock will stay above the strike sold, in which case, as time passes and/or volatility drops, the option can be bought back cheaper or expire worthless, resulting in a profit.

You have to consider the same things as when buying a put, except in reverse. Just remember, a short put has limited profit potential in exchange for relatively high risk.

It's important to note that short strategies aren't just limited to selling calls and puts. There are smarter, hedged alternatives to short strategies that we'll cover in chapter 10 on vertical spreads.

UNDERSTANDING OPTION PRICING

You now understand that if an option is listed for \$2.50, that you'll actually pay \$250 in real dollars. However, since an option derives its price from something else, you may be wondering what that something else is. Yes, part of it is the underlying asset, but what part?

Options actually derive their value from six primary factors:

1. Price of the underlying
2. Strike price
3. Time to expiration
4. Implied volatility
5. Interest rates
6. Dividends (if any)

Now while it could fill another book twice this size to explain just how all six components somehow cobble together to form the price you see, the takeaway is that it's not one-dimensional like stocks. For example, before expiration, a stock could go up without the value of the call rising, depending on how far out of the money the call is, or what the volatility is doing. Likewise, a put could increase in value without the stock moving at all if volatility rises.

As a rule of thumb, the higher the volatility, the more expensive the option, and the more days until expiration, the more expensive the option. We'll discuss this more in chapter 8.

For purposes of trading shorter-term options, the impact of interest rates and dividends on option prices is minimal. So tuck that in the back of your mind for now.

At expiration, an option is worth either nothing, or whatever its intrinsic value is. Generally, option values depend on the stock price, the strike price, the stock price's implied volatility, the time to expiration, interest rates, and any dividends payable before the option's expiration.

These days, the markets are pretty efficient, and option prices actually are calcu-

lated using an option-pricing formula, such as Black-Scholes. Alternative option calculators exist, but who are we kidding? In today's markets various option models are all about fractions of a penny and options geekisms that extrapolate beyond where we want to go for today's lesson.

HOW TO CLOSE AN OPTION POSITION

As an options trader, you can close out your positions in a number of ways:

1. Let the option expire if it's out of the money and worthless.
2. Offset the option any time prior to expiration by buying back sold options when you opened the position, or selling bought options when you opened the position.
3. Exercise the option if it's in the money.
4. Use an automatic exercise.

If, at expiration, you're holding an option that is in the money by more than 0.01, then the Options Clearing Corporation (OCC) will automatically exercise that option on your behalf.

If a long call is automatically exercised on the next business day after expiration (usually the Monday after expiration Friday), you will now have a long stock position and must pay for the stock at the strike price of the call purchased, by the close of the

business day. On the other hand, you could elect to sell the stock to help pay for it. You'll keep any profit, or pay for any loss, to help make up any deficit. However, keep in mind that you may incur transaction costs for the stock trade that will reduce any profit you may have received.

If you own a put that is being exercised, it will automatically be exercised on the next business day after expiration (usually Monday, after expiration Friday). Unless you already own the shares you're obligated to sell, you'll now have a short stock position and will be required to deposit the margin requirement for a short stock position by the close of the business day. Alternatively, to close the short, you could buy the stock back. You'll keep any profit, or have to pay for any loss. Again, you may incur transaction costs for the stock trade.

THE BOTTOM LINE? WHEN TRADING options, you learn to refine your speculation so you incorporate how much you think the stock may move, how much time it will take for the stock to move, and how implied volatility might change. These are all factors in deciding which options strategy you might choose. Ignoring these factors is a major reason why novice option traders can lose money. In the long term, understanding these critical trade-offs will help you understand the overall performance of your options positions.



ROLLING EXITS

There's a 5th way to exit a trade that involves "rolling" your options from one month to the next, which we'll discuss in greater depth in chapter 11.

Strategy Roller on the thinkorswim platform makes it easier to automate your rolling strategy.

You can find Strategy Roller in the submenu under the Monitor tab.

- 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 is subject to TD Ameritrade review and approval. Please see our website or contact TD Ameritrade at 800-669-3900 for options disclosure documents. Carefully read these

documents before investing in options.

- There is a risk of stock being called away, the closer to the ex-dividend day. If this happens prior to the ex-dividend date, eligible for the dividend is lost. Income generated is at risk should the position move against the investor, if the investor later buys the call back at a higher

price. The investor can also lose the stock position if assigned.

- A long call or put option position places the entire cost of the option position at risk. Should an individual long call or long put position expire worthless, the entire cost of the position would be lost.
- The risk of loss on an uncovered call option

position is potentially unlimited since there is no limit to the price increase of the underlying security. The naked put strategy includes a high risk of purchasing the corresponding stock at the strike price when the market price of the stock will likely be lower. Naked option strategies involve the highest amount of risk and are only appropriate for traders with the

highest risk tolerance.

- With the protective put strategy, while the long put provides some temporary protection from a decline in the price of the corresponding stock, this does involve risking the entire cost of the put position. Should the long put position expire worthless, the entire cost of the put position would be lost.



● VOLATILITY

MARKETS MOVE. GET OVER IT

Just the thought of a little volatility can send a timid trader running for the hills. Ironically. Without volatility there are no trading opportunities. So rather than fear it, revere it.

Sometimes the market moves a little. Sometimes the market moves a lot. Why? It might be political unrest in the Middle East. It might be earnings season. It might be the release of economic data. Or TV's talking heads have found a story they can link to the day's up, down, or stagnant market. In a word, yawn.

Volatility—the magnitude of price change in a stock or index—happens. The change might seem high or low. But no matter what volatility has done, will do, or is doing right now, as a trader you keep looking for opportunities. What you don't do is scratch your head trying to figure out the cause and then wait for the perfect volatility scenario to arrive. Why? Because that perfect moment doesn't exist.

Imagine you're shooting an arrow at a target in the wind. The wind will push the arrow a little bit to the left or right depending on its direction. But you don't pack up and go home. You aim the arrow a little bit left or right to account for the wind's velocity to hit your target. Trading in the context, and presence, of volatility means you may need to adjust your trading strategy like you did with the wind.

The goal here is to flatten your learning

curve, get you smarter and more comfortable, and help you be more confident when dealing with volatility—the trading world's inevitable prevailing winds.

VOLATILITY-SPEAK

Since we can't avoid the big words, first, here are the most common terms you're likely to hear thrown around regarding volatility.

Implied Volatility

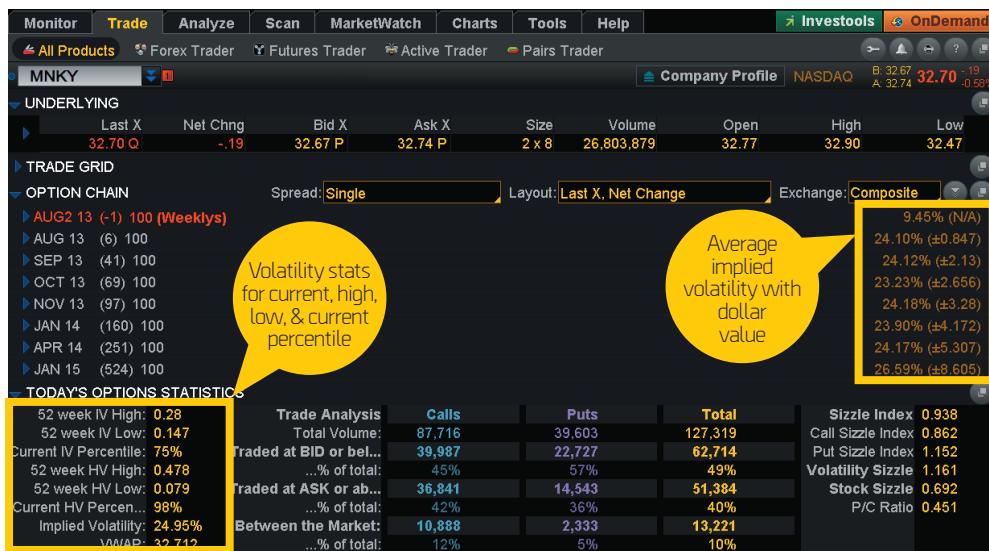
In the simplest terms, implied volatility is the market's overall perception of the future volatility of an underlying security, and is directly reflected in an option's premium, or price. Implied volatility, expressed as an annualized number, is forward-looking and can change.

Implied volatility is available only for options. Stocks don't have it. Neither do futures. Likewise, implied volatility is based solely on current data. It's not backward

looking. And traders use it to estimate the potential volatility of an underlying stock or index into the future. How far in the future? Well, an option is only interested in the underlying stock until expiration, even though it's based on a one-year time frame mathematically.

Looking at an option from one expiration to the next, you may see that the implied volatility of an at-the-money option is higher in a near-term expiration than in a further-term expiration (see Figure 1) when there's press—like an earnings or news announcement creating short-

Figure 1: Implied volatility help. Understanding where current volatility sits compared to its recent range (yellow box, lower left) along with how each expiration's average implied volatility is behaving relative to the others, will help you create your strategy. *For illustrative purposes only.*



- The information contained here is not intended to be investment advice and is for illustrative purposes only.

term uncertainty. When the news comes out, the stock might have a lot of large price changes in the short term, but then settle once the news is absorbed in the longer term.

The implied volatility of options in different expirations can reflect these variations. Think of the volatility wind filling up an option's extrinsic value like a balloon. When there's lots of uncertainty, the wind picks up and the balloon gets bigger, just like extrinsic value. When the uncertainty dies down, so does the wind and the balloon deflates, just like extrinsic value.

Historical Volatility

Historical volatility is based on the stock or index price over some period of time in the past. It looks at a stock price's percentage change from one period to the next, whether that period is a year, a day, or a minute.

Historical volatility is the standard deviation (the dispersion of data from its mean) of those percentage changes. It indicates the magnitude of the percentage price changes in the past. The challenge with historical volatility is the amount of past data you might use in your calculation.

VOLATILITY FOR STRATEGY SELECTION

Perhaps you feel ready to trade and aim for the bull's-eye, but despite what direction you think the stock is headed, the volatility wind is blowing. How might you accommodate it in deciding which strategy to trade?

In a word, keep it simple as you work to understand how volatility can affect options prices. All things equal, higher volatility means an option's extrinsic (time) value is higher. Conversely, lower volatility means an option's time value is lower. How do you know if it's high or low? You can look at thinkorswim's options statistics data in the Trade page.

Looking at MNKY in Figure 1, for example, by clicking the dropdown menu "TODAY'S OPTIONS STATISTICS," you can see the implied volatility and current IV percentile numbers. Since MNKY at 24.95% implied volatility is trading at the top 75% of its 52-week range, you

might infer that it's a bit on the high side. High-volatility scenarios are typically better-suited to strategies involving short options that are designed to profit from time decay, such as the short call or put, or the safer alternative, the short vertical spread (See chapter 10). Were its current volatility in the bottom, say, 25% of its 52-week range, you might implement a long option strategy such as buying a call or a long vertical spread (chapter 10).

Bear in mind, too, if an option has more time to expiration, it's more sensitive to volatility changes. Specifically, strategies that involve shorting options may generate smaller credits with lower volatility. Because the credit comprises the potential profit for those trades, lower volatility makes the maximum risk higher and potential profit lower, given the same strike prices and days to expiration.

On the other hand, strategies like long calendar spreads (chapter 11) can have lower debits with low volatility that decreases their maximum risk. When volatility is lower, a trader may bias her trades toward doing more calendar spreads, say, and fewer short verticals. When volatility is higher, she may put on fewer calendar spreads and more short verticals.

VOLATILITY FOR POSITION SIZING

From a risk-management perspective, an options trader may adjust his position size depending on volatility. When volatility is high and there's lots of uncertainty driving the market, reducing your position size (i.e., number of options contracts) can be prudent.

However, when volatility is lower, do you increase your position size? Not necessarily. Generally, you should have some maximum risk in mind beyond which you're not willing to go. So, no matter how low volatility gets, you should not exceed that number. And if you've reduced your position size from that maximum risk amount with high volatility, you might want to increase your position size closer to the maximum amount if volatility drops again.



● OPTIONS GREEKS

DANCING WITH THE GREEKS

Options prices change quickly. That much is clear. What's not always clear is why. Options greeks can be essential tools for understanding what can happen to your trade long before you get in.

The Greeks have given us feta cheese, philosophy, mathematics, and the Oedipus complex. In a trading context, “greeks” also tell us how much risk our option positions might be carrying due to the following factors:

1. Stock price
2. Time
3. Volatility
4. Interest rates
5. Dividends

Figure 1: Options greeks on thinkorswim. To display the greeks in the option chain, (1) select “Delta, Gamma, Theta, Vega” from the Layout dropdown, then (2) view the greeks under the calls and puts. *For illustrative purposes only.*

CALLS	PUTS
Delta, Gamma, Theta, Vega, ALB 13 (-1) 100 (Weekly)	Delta, Gamma, Theta, Vega, 9.45% (N/A)
Bid X Ask X Strike Bid X Ask X Strike	Bid X Ask X Strike Bid X Ask X Strike
.72 .12 -.01 .05 2.11 2.15 C OCT 31 .62 N .64 T	.29 .11 -.01 .05 32 .98 C 1.00 Q .41 .12 -.01 .06 33 1.48 A 1.51 T .54 .13 -.01 .06
.59 .13 -.01 .06 1.48 I 1.51 C OCT 32 .98 C 1.00 Q .25 .12 -.01 .05	.23 .12 -.01 .05 34 2.12 I 2.15 Q .55 .13 -.01 .06
.46 .13 -.01 .06 1.00 Q OCT 13 .33 1.48 A 1.51 T .25 .12 -.01 .05	
.23 .12 -.01 .05 63 Q 64 Q OCT 13 .34 2.12 I 2.15 Q .25 .12 -.01 .05	

fifth greek, rho, which involves the change in interest rates. The affect it has on your options is likely minimal, so we’re leaving it out of this discussion.)

A common misconception is that greeks are factored into the price of an option. They’re not—they aren’t a part of any option-pricing formula. However, they’re derived from price, and can be used to give you a better idea of what might happen to the price of your options when these various risks change—something like a “stress test” of your positions, if you will.

As the value of an option trade changes, you could make or lose some amount of money. Let’s break the greeks down, one by one, and consider some useful trading tips along the way. Using the veritable stock XYZ, let’s break down and analyze each greek on its own, then come back to how they all work together.

Figure 2: Long call on stock

XYZ. Greeks help you project what will happen to your option should factors change.

OPTION VALUE	DELTA	GAMMA	THETA	VEGA
2.00	.50	.02	-.05	.04

DELTA: STOCK PRICE

Delta is typically the first option greek traders learn. It answers the question: if the stock rises or drops in value by one dollar, how much money does an option trade earn or lose? Simply, delta measures how much the theoretical value of an option will change if the underlying stock moves up or down \$1. (see Figure 2.)

The larger the delta, the more money you stand to make or lose if the stock moves in your favor or against you by \$1. Looking at Figure 1, all things being equal, your \$2 call option would be worth \$2.50 should XYZ move \$1. Likewise, if XYZ fell \$1, your call would be worth \$1.50. That's the simple part.

“Positive delta” means that the option position will rise in value if the stock price rises, and drop in value if the stock price falls. “Negative delta” means that the option position will theoretically rise in value if the stock price falls, and theoretically drop in value if the stock price rises.

The delta of a call can range from 0.00 to +1.00; the delta of a put can range from 0.00 to -1.00. Long calls have positive delta; short calls have negative delta. Long puts have negative delta; short puts have positive delta. Long stock has positive delta; short stock has negative delta. Confused? Hang in there.

The closer an option’s delta is to 1.00 or -1.00, the more an option price responds like an actual long or short stock position of 100 shares when the stock price moves. When the delta of an option reaches 100, it’s said to be in parity with the underlying stock.

The question becomes, since delta is always changing with each new \$1 move in the underlying, how do you calculate the delta of the next \$1 move? That’s where gamma comes in. See? Help is on the way!

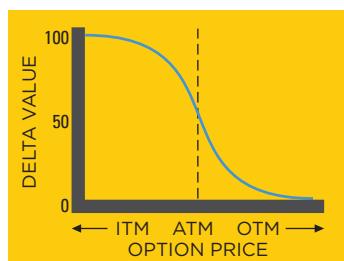
GAMMA: MAGNITUDE OF STOCK PRICE

Unlike stocks, option prices don’t move up or down in a straight line. More, the rate of change for an option changes with each dollar move in the stock. And gamma represents that rate of change. (see Figure 4.)

More precisely, it measures the rate of change in delta given a change in the underlying stock, and answers the question, how much faster or slower does my option trade make or lose money if the stock price changes more than a small amount?

Using the long-call sample in Figure 1, notice that the option has a .50 delta and a .02 gamma. We already know that if XYZ moves up \$1, the call is worth \$2.50. However, what if XYZ moves up \$2? Check your gamma. You simply add delta and gamma together for a new delta of .52 on the next \$1 move in the stock. Therefore, a \$2 gain in the stock will net the option a gain of \$1.02 ($\$0.50 + \0.52). Your call would now be worth \$3.02.

Both long calls and long puts always have positive gamma. Both short calls and short puts always have negative gamma. Stock has zero gamma because its delta is always 1.00—it never changes. Positive gamma means that the delta of long calls will become more positive and move

Figure 3: The delta curve.

WATCH YOUR POSITION DELTA!

You can add, subtract, and multiply deltas to calculate the delta of an option or stock position. The position delta is a way to see the risk/reward characteristics of your position in terms of shares of stock. And the calculation is surprisingly straightforward.

Position delta equals the option delta times the quantity of option contracts times the number of stock shares per option contract. (The number of stock shares per option contract in the U.S. is usually 100 shares. But it can be more or less, due to stock splits

or mergers.) You can calculate this on thinkorswim for each option in your position, then add them together for each stock.

So, if you’re long 5 of the XYZ Aug 50 calls, each with a delta of +0.45, and short 100 shares of XYZ stock, you will have a position delta

of +125. (Short 100 shares of stock = -100 deltas, long 5 calls with delta +0.45, with 100 shares of stock per contract = +225. $-100 + 225 = +125$). A way to interpret this delta is that if the price of XYZ rises \$1, you will theoretically make \$125. If XYZ falls \$1, you will theoretically lose \$125.

toward +1.00 when a stock price rises, and less positive and move toward 0 when a stock price falls.

It means that the delta of long puts will become more negative and move toward -1.00 when the stock price falls, and less negative and move toward 0 when the stock price rises. The reverse is true for short gamma.

Just as delta changes, so does gamma. If you were to look at a graph of gamma versus the strike prices of the options, it would look like a hill, the top of which is very near the at-the-money (ATM) strike. Gamma is highest for ATM options, and is progressively lower as options are both in the money (ITM) and out of the money (OTM). This means the delta of ATM options changes the most when the stock price moves up or down.

Think of an ITM call option (.90 delta), an ATM call option (.50 delta), and an OTM call option (.10 delta). If the stock rises, the value of the ITM call will increase the most because it acts most like stock. The rate of delta change is very low because delta really doesn't get much closer to 1.00. The value of the OTM call will also increase, and its delta will probably increase as well. But it will still be a long way from 1.00. The value of the ATM option increases and its delta changes the most. That is, its delta is moving closer to 1.00 much quicker than the delta of the OTM call.

Practically speaking, the ATM call can provide a good balance of potential profit if the stock rises versus a potential loss if the stock falls. The OTM call will not make as much money if the stock rises, and the ITM will lose more money if the stock falls.

THETA: TIME DECAY

Stock direction is one risk. Another is time. If you're buying options, time passing typically works against you. If you're selling options, time typically works in your favor. Either way, you can't control the calendar, so theta answers the question: if one day passes, how much money does my option trade make or lose?

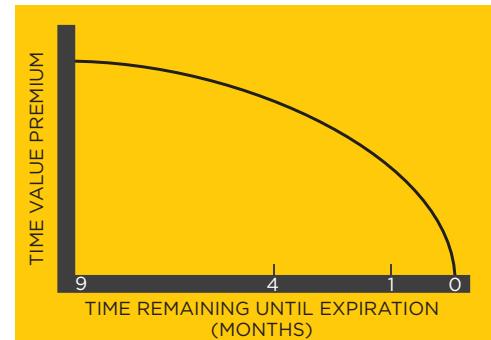
It makes sense that all else being equal, an option with more time to expiration

should be worth more than an equivalent option with less time to expiration. Therefore, as we approach expiration, there must be a way to measure this daily option decay. That is theta's role.

"Positive theta" refers to option positions that gain in value as time passes, whereas "negative theta" refers to positions that decay as time passes. Long calls and long puts always have negative theta. Short calls and short puts always have positive theta. Stock has zero theta—its value is not eroded by time.

All other things equal, an option with more days to expiration will have more extrinsic (time) value than an option with fewer days to expiration, and thus erode more slowly with each passing day. This is due to theta. Therefore, it makes sense that long options have negative theta and short options have positive theta. If options are continuously losing their extrinsic value, a long option position will lose money because of theta, while a short option position will make money because of theta.

But theta doesn't reduce an option's value at an even rate. Theta has much more impact on an option with fewer days to expiration than an option with more days to expiration. Borrowing the graphic below from chapter 7, we can see theta in action.



For illustrative purposes only.

For example, an XYZ option at \$3.00 with 20 days until expiration might have a theta of -.15. Whereas, an XYZ option at \$4.75 with 60 days until expiration might have a theta of -.03. If one day passes, and all things remain equal (stock price and volatility), the value of the XYZ Oct 75 put will drop by \$0.15 to \$2.85, and the value of the XYZ Dec 75 put will drop by \$0.03 to \$4.72.

VEGA: VOLATILITY

If someone tells you that the implied volatility of an option has risen several percentage points, you may safely infer that, all else being equal, the option has risen in value. The real question, though, is by how much has the option changed?

Vega is an estimate of how much the theoretical value of an option changes when volatility changes 1%. Higher volatility means higher option prices. The reason is higher volatility means a greater price swing in the stock price, which translates into a greater likelihood for an option to make money by expiration.

Both long calls and long puts always have positive vega. Both short calls and short puts always have negative vega. Stock has zero vega—its value is not affected by volatility. Positive vega means that the value of an option position increases when volatility increases, and decreases when volatility decreases. Negative vega means that the value of an option position decreases when volatility increases, and increases when volatility decreases.

Suppose the initial implied volatility of the option is 30%. (Which again, you can find under the “Today’s Options Statistics” dropdown on the Trade page of thinkorswim.) Your initial option value is \$2, and you have a vega value of 0.04. Should the implied volatility rise from 30% to 31%, what can you expect your call option to be worth? Since it’s merely a 1% rise in implied volatility, you simply multiply 0.04×1 and add it to the option value. Therefore, your call is now worth \$2.04. Conversely, if volatility were to instead

drop from 30% to 29%, your option value should drop from \$2.00 to \$1.96.

Vega is highest for ATM options and gets progressively lower as options are ITM and OTM. This means that the value of ATM options changes the most when the volatility changes. The vega of ATM options is higher when either volatility is higher or there are more days to expiration.

GREEK WRAP-UP

Is it all still sounding like Greek? Sorry. Bad pun. In fact, you can “stress test” an option position’s risk to get a sense of what can happen to its price. What will happen if volatility changes? Check your vega. What will happen when a day passes? Check your theta. What will happen if the underlying stock or index moves up \$1? Check your delta. How about \$2? Check the delta and gamma (see sidebar, right).

So, now that you know the basics of greeks and the math behind them, here’s the reality. The phrase you’ll hear over and over again is, “all things being equal.” In point of fact, delta can estimate how much the option’s price will change if the stock moves up \$1—as long as time doesn’t pass, and volatility and interest rates don’t change. That’s nice for a textbook. But useless in real trading. Everything’s moving all the time. And you have to make a meaningful, potentially profitable trading decision in that environment. Fun, huh?

Now, take the quiz in the sidebar “Pop Quiz” to see how well you really know greeks at this point.

**POP QUIZ**

Using the same prices as before, consider the following values for an option on stock XYZ.

OPTION VALUE	DELTA	GAMMA	THETA	VEGA
2.00	.50	.10	-.05	.04

Using the greek values in the table above, what would your call be worth if:

1. Stock XYZ moves up \$2
2. It takes five days to make this move
3. Implied volatility drops 3% during this time

How much is your option worth now?

ANSWER (DON’T CHEAT!)

With the original price of the option at \$2.00:

1. Stock move = + \$1.10. (+\$0.50 on the first \$1 move in the stock. With the gamma at .10, the delta on the second \$1 move becomes .60)
2. Duration = $-\$0.25$ (five days at $-.05$ theta per day)
3. Implied volatility drop = $-\$0.12$ (3% drop at $-.04$ vega)

Answer: **\$2.73**



HOW TO STRESS-TEST YOUR TRADE WITH GREEKS

It's one thing to know how the greeks work. But can we see them in action? Sure. With the Analyze page on thinkorswim, you can stress-test your options position by "seeing" how each of the variables that can change an option's value might affect your trade.

Referring to the figure below, first create a simulated trade on the Analyze page. (Here we're analyzing 1 Oct 32 call at \$1.51.) Then look in the Price Slices section for the current stock price, and it'll show you the greeks from left to right for the position. The greeks you'll see (labeled #1 in image) are listed in dollar value. (i.e., the delta value of 49.97 in the image means the position will gain or lose \$49.97 in nominal value for a \$1 move up or down respectively in the stock.)

Once you can see your position greeks (the cumulative total of all contracts in your trade), you can stress-test your prospective trade before committing to it.

1. Change any of the variables that affect the greeks, such time (by selecting a date in the future), stock price, and volatility. (To access price and volatility, click the little wrench-looking thingy just below the Date change box on the lower right.)

2. Look at the greek values change

3. Watch the profit curve move.

Each of the variables you change will have an impact on the greeks and thus, the profit curve of your trade. This will give you a good sense of how your option will react under certain conditions. This can be a real eye-opener when considering what type of strategy you may want to employ, such as whether to implement a long versus short option position.



- 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 is subject to TD Ameritrade review and approval. Please see our website or contact TD Ameritrade at 800-669-3900 for options disclosure documents. Carefully read these documents before investing in options.

For illustrative purposes only.

**UP,
DOWN,
WHO
CARES?**

10 VERTICAL SPREADS

11 CALENDAR SPREADS



401

**SPREAD TRADING
PRIMER**



As an options trader, your future success is largely based on an ability to create strategies designed to not only address specific market concerns, but also exploit identified market conditions. As tools, options spreads can help you develop a customized trading approach.

For instance, if you're concerned implied volatility is too high, there are spreads designed to help provide some protection. On the other hand, if you're feeling aggressive, there are spreads designed to attack a high-volatility environment. Regardless of market conditions and whether you're thinking offense or defense, there's a spread to fit your style and your goals.

A spread is simply a combination of more than one option in a single position. Vertical spreads, calendar spreads, and straddles—strategies we'll cover in the next few chapters—tuck up nicely under the umbrella of spreads. Initially, you may think that combining options simply creates more work. After all, why trade spreads when calls and puts are simpler? Well, single-option strategies certainly have their place. But as it turns out, spreads help to mitigate many of the risks inherent in single options—risks like changes in volatility and time decay, as well as margin and capital requirements.

Spreads offer a variety of choices should you want to speculate on trending or range-bound markets, and even for income. Of course, there's a price to pay for all these wonderful benefits. A spread that lowers your overall cost may also lower your maximum potential reward. One that helps you profit from a large potential move may also have greater time decay. However, spreads can help you stay flexible while creating custom trades. So they may make the trade-offs well worth it.

CHAPTER 10

THE MAC DADDY OF SPREADS

• VERTICAL SPREADS

There are few things more frustrating as you trade options than being right on the direction of the stock, but having your position lose money. When buying calls and puts loses money for you faster than you can say “time decay,” consider vertical spreads.



What separates successful option traders from the rest of the pack? Perhaps you believe it's a complex set of rules or inside analysis or secret handshakes.

In fact, the secret sauce is that even if they're wrong on the direction of the stock or index, a pro's positions can still be profitable. That might not sound all that remarkable. But in reality, choosing the right strategy trumps trend-picking skills. And choosing the right strategy requires a playbook that goes well beyond long single calls or puts—starting with the vertical spread.

The vertical underlies the bulk of all the more complex strategies combined. And it can be profitable even if your directional pick isn't right. It can also help insulate you from changes in time and volatility. In fact, the vertical could be the most important option strategy you ever learn.

THE MIGHTY VERTICAL

Should you decide only to buy single calls and puts, here's a potential catch. In order for your trades to be profitable, three things need to happen:

1. The stock needs to move in the right direction
2. The move has to be big enough
3. Both have to happen before expiration

Yet, by trading the appropriate vertical:

1. The stock can move opposite to what you expect, or not at all, with positive results
2. The stock can move only a small amount with positive results
3. Time passing can be beneficial

Trading long options can be like trying to pick a winner at the track. If you want a potentially more reliable strategy, even if less sexy, consider verticals. Compared to single calls and puts, a lot of veteran

traders consider verticals the building blocks of options trading.

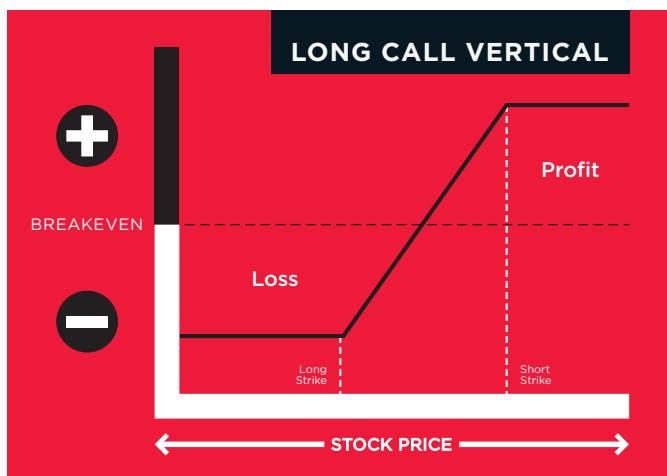
To get you started, let's map the terrain and start with some easy definitions.

VERTICALS 101

Vertical spreads are composed of two options—one long and one short—that are either both calls or both puts. Both options are in the same expiration and are the same quantity. Inside a vertical, when the stock moves one way or the other, all else being equal, one option is making money, and the other is losing money—so in theory, they offset each other. They don't offset equally, but enough so that verticals can be one of the tamest positions in your option playbook.

At expiration, a vertical will always have a value between \$0 (when both vertical options are out of the money) and the difference between the long and short strikes (when both options are in the money). For example, if you're long an XYZ 49/52 bullish call vertical, it would be worth \$0 if XYZ is below \$49, or \$3 if XYZ is above \$52 at expiration. That defines the minimum and maximum values for the vertical, whether long or short. At expiration, when one option of the vertical is in the money, and the other is out of the money, the vertical is worth the intrinsic value of the in-the-money option.

Figure 1: Profit curve of long call vertical. For illustrative purposes only.



TRADER JARGON

Leg—The option(s) of a particular strike and expiration that make up part of a spread. For example, a vertical spread has two legs—one short leg at one strike, and a long leg at another.

Now, keep in mind you can either buy verticals (long), or you can sell them (short).

THE LONG VERTICAL

The next time you're bullish on a stock and looking to buy a call, consider a long call vertical spread (a "long call spread"). Why? Perhaps implied volatility in the options is a little higher, or you're only moderately bullish. Or you feel the trend is up and you want to participate, but you're not entirely sure of the timing. In this case, the long call vertical can be a less-expensive, lower-risk, bullish alternative to a long call.

The Trade

1. Use two different call options that share the same expiration date
2. Buy one call option (lower strike) and sell the other one (higher strike).

For Example

To illustrate, take a look at the call option chain on MNKY stock at \$31.62 (Figure 2).

MNKY	Last X	Net Chng	Bid X	Ask X	Size	Volume	Open	High	Low
	31.62 Q	.23	31.52 P	31.66 P	10 x 5	38,637,339	31.26	31.62	31.205
TRADE GRID									
OPTION CHAIN									
	Spread	Single	Layout:	Probability ITM		Exchange	Composite		
	CALLS		Strikes:	6		PUTS			
	Prob. ITM	Bid X	Ask X	Exp	Strike	Bid X	Ask X	Prob. ITM	
SEP 13 (54) 100	84.55%	2.68 C	2.73 I	SEP 13	29	.22 I	.24 C	17.84%	
	73.73%	1.82 C	1.87 I	SEP 13	30	.41 I	.43 I	28.81%	
	57.30%	1.16 I	1.18 O	SEP 13	31	.75 Q	.76 I	43.61%	
	39.78%	.67 I	.68 Q	SEP 13	32	1.26 T	1.28 C	59.56%	
	24.37%	.34 C	.36 I	SEP 13	33	1.93 C	1.97 C	73.41%	
	13.63%	.11 I	.10 Q	SEP 13	34	2.76 Z	2.79 I	83.00%	

The criteria for choosing a particular pair of strikes for your long call vertical vary greatly due to things like cost and low risk-to-reward ratios. But let's assume you select the 31 and 32 strikes. To place a long call vertical in our example:

1. Buy the 32 call for \$0.68
 2. Sell the 33 call for \$0.34
- Net debit = \$0.34 (total \$34 per spread)**

Breaking it Down

The resulting spread trade is a long 32/33 call vertical for a debit of \$0.34. Keep in mind that while any spread order involves two or more simultaneous transactions (and hence, two or more commissions), it's placed as one order for one price. The two "legs" of the trade behave as one trade, and can be treated as such, making it convenient to handle.

Reviewing your trade, with the long call vertical, the sale of the 33 call helped finance the purchase of the 32 call. In general, shorting the 33 may have seemed risky. But as long as both positions remain open, the long option will always be worth more than the short option. Potentially, that limits the risk to the price you paid for the spread.

Why? Suppose the stock rises from \$33 to \$40. It's possible you may be obligated to sell the stock at a mere \$33, which sounds terrible. However, because you own the 32 call, you reserve the right to buy the stock for \$32—or \$1 lower than where you may be obligated to sell it. Thus, the extent of your obligation (the short 33 call) is more than covered by your right to buy the long 32 call.

What's Next?

You can exit from the vertical at any time before expiration. However, the maximum profit for the spread occurs at expiration when you can buy stock for \$32 and sell it at \$33. This can happen if at expiration the stock settles at, or above, \$33. It would leave you with a maximum profit of \$1 (\$100 real dollars), less the initial debit paid for the spread and transaction costs. (See the risk graph in Figure 3.)

One caveat for long verticals:



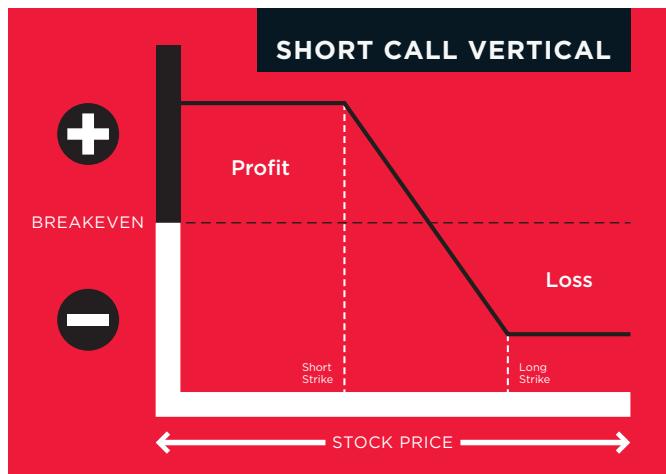
Figure 3: Long call vertical profit curve. For illustrative purposes only.

when the stock makes a big move in your anticipated direction well before expiration, the value you can realize from the spread is sharply diminished by the time premium on the short option position.

THE SHORT VERTICAL

The short call vertical (“short call spread”) serves as a bearish, safer alternative to the short call, as your risk is defined, particularly when implied volatility on the options is running high. It has similar guidelines to those for the long call vertical, but with one key difference: the call option you sell has a lower strike than the one you buy. Refer to Figure 4 for the short call vertical risk profile. Notice the position of the strikes.

Figure 4: Short call vertical. For illustrative purposes only.



The Trade

1. Use two different call options that share the same expiration date.
2. Sell one call option (lower strike) and buy a higher strike call option as your hedge.

For Example

Using the same option chain from Figure 2, previous page suppose you wanted to sell a bearish call vertical (i.e. short vertical). You might look to sell the first out-of-the-money vertical from where the stock price sits. In this example, with the stock at \$31.62, the short 32/33 call vertical sells for \$0.31 per spread. To do so you would:

1. Sell the 32 call for \$0.67
 2. Buy the 33 call for \$0.36
- Net credit = \$0.31 (total \$31 per spread)**

Figure 3 above, shows the profit curve on the thinkorswim trading platform.

Breaking it Down

Now you’ve constructed the short 32/33 call spread for a credit of \$0.31. Said another way, you have sold the 32/33 call spread at \$0.31. Because you’re shorting the 32 call, you have the obligation to sell stock at \$32. Then, by purchasing the 33 call, you’ve gained the right to purchase the stock for \$33. This is your hedge against the short call. Notice that the \$1 difference in your obligation (short call) is not completely covered by the extent of your right (the long 33 call). Therefore, your potential risk in the trade is the difference between the strikes, less the credit received, or \$0.69 (\$1.00 – \$0.31). Keep in mind there will be transaction costs associated with both options trades as well.

What’s Next?

Maximum profit on a short spread (the net credit) is usually achieved when the spread expires worthless. For the short 32/33 call spread, this would occur if at expiration the stock settles at, or below, a price of \$32. (See Figure 5.) A short vertical is nice



Figure 5: Short call vertical profit curve. For illustrative purposes only.

because you don't have to be overly bearish for it to potentially work. In fact, since your breakeven on the trade at expiration is \$32.31, from the current price of \$31.32, MNKY can move lower, remain at \$31.32, or even trade a little higher—so there's “action” in all three directions.

What Happens at Expiration?

If both options are in the money by at least \$.01, at the close of trading on expiration day, and you haven't closed out your position, the stock shares from the automatic long option exercise will offset the stock shares from the likelihood of the short option assignment. So, you wouldn't have any stock position after expiration. But if the stock is in between the vertical strikes at expiration, the in-the-money option will deliver either long or short shares to your account, depending on whether it's a long or short call or put. If you don't want shares in your account, you'll have to either close the in-the-money option, or the entire vertical, before the end of trading at expiration.

LOCATION, LOCATION, LOCATION

The kind of verticals you engage—long or short—and their respective strikes, determine how they might be profitable. If you want a long vertical to be at its maximum expiration value, you place the strikes at levels you think the stock will move beyond—either higher for a long call ver-

tical, or lower for a long put vertical. If you want a short vertical to be at its minimum expiration value, place the strikes at levels you don't think the stock will reach.

Consider a bullish long call vertical, and a bullish short vertical, both on stock XYZ at \$50. Let's say you could buy the 55/56 call vertical for \$0.30 debit, or sell the 44/45 put vertical for \$0.30 credit.

The long 55/56 call vertical has a maximum loss of \$30 if XYZ is below \$55, and a maximum profit of \$70 if XYZ is above \$56, with a breakeven point at \$55.30.

The short 44/45 put vertical has a maximum loss of \$70 if XYZ is below \$44, and a maximum profit of \$30 if XYZ is above \$45, with a breakeven point at \$44.70. (Keep in mind that none of these examples include transaction costs that will affect potential profits, losses, and breakeven points.)

Think about it. Like a long call, you have to be right on three things for a long call vertical to profit: (1) XYZ has to rally, (2) it has to rally high enough, and (3) it has to rally before expiration. But, for the short put vertical to be profitable, XYZ can go up, stay the same, and even drop five points. And, as long as XYZ is above \$45 at expiration, the short put vertical can potentially make money. The out-of-the-money bullish short put vertical could make money even if the price of XYZ drops a bit.

As we mentioned at the start of the chapter, using verticals is a strategy that could be profitable even if you're wrong about a stock's direction. The short put vertical could make less money than the long out-of-the-money call vertical, but it could make money more consistently. The same is true for short call verticals, or at-the-money, long call or put verticals, where the stock doesn't have to move up or down as much to be potentially profitable.

RISK AND VERTICALS

Likewise, the defined-risk characteristic of verticals means they can often have less

risk than a stock's bullish or bearish position. In high-priced, volatile stocks, verticals can have even less risk than buying individual options, in exchange for limited profit potentials.

For example, with XYZ at \$50, the \$49 call priced at \$1.75, and the \$51 call priced at \$0.80, a bullish position means you'd be buying 100 shares of XYZ with a maximum risk of \$5,000, or buying a 49 call with a maximum risk of \$175, or buying a 51 call with a maximum risk of \$80. The bullish long 49/51 call vertical would cost \$0.95 debit. Its \$95 maximum risk is much lower than the long 100 shares, lower than the long 49 call, and only slightly higher than the long 51 call—again, not including transaction costs.

A VERTICAL PLAYBOOK

The downside to verticals? They can generate commissions, contract fees, and exercise-and-assignment fees for both options. Plus, they have limited profit potential and, like all options, they expire—which, as you'll need to regularly open and close new portfolio positions, can make it difficult to maintain exposure in a particular stock or index.

But, if you decide verticals might play a role in your strategy, how do you decide between a long call vertical, or short put vertical, or long put vertical, or short call vertical? And how do you pick the strikes? It's not a question of which is "best," but drilling down on one of two things:

1. What's your bullish or bearish outlook for the stock?
2. Is volatility relatively high or low?

Consider an elementary verticals playbook.

In general, you short out-of-the-money verticals when volatility is high, and you're less confident in your directional bias. The out-of-the-money vertical gives more "room" for the stock to move against you, and still be potentially profitable.

In general, you buy at-the-money verticals when volatility is lower, and you're

more confident in your directional bias. The at-the-money vertical responds more directly to a stock's price change, because its delta is higher than an out-of-the-money vertical.

Of course, if the trader's directional bias is wrong, the at-the-money vertical will lose money more quickly if the stock moves against it. Once you choose a long or short, call or put vertical, you can then select the long and short strikes to match how much you think the stock might move, how much risk you're willing to take, how much sensitivity to the Greeks you're comfortable with, and how much capital is required.

ESSENTIAL DETAILS

If you're thinking about trading verticals, consider a few pro tips.

Use limit orders. When you're opening a position in a vertical, consider using limit orders. They give you control over the price where you trade the spread, but there's no guarantee that the order will be filled. Of course, market orders will seek to fill your orders at the next available prices, but you'll risk getting terrible fill prices on two options, not just one, which can compound the problem.

Don't "leg in" to the trade. Buying one option and selling the other should be done with a single order. When you try to do them in separate orders, it's called legging, and it exposes you to more risk if you only get one "leg" order filled and the market moves against it before you complete the other side.

Never set it and forget it. Even though verticals might not be as sensitive, don't just forget about them. At expiration, be aware that if the stock price is in between the options' strikes, you could automatically exercise or be assigned on one of the options—but not both. That would leave you with a long or short stock position after expiration, and expose you to unwanted risk.

Verticals are often called the "gateway" trade. Once you figure them out, you might combine them into more complex trades such as butterflies and iron condors. Believe it or not, those options increase your trading flexibility and choices even more.



HOW TO PLACE A VERTICAL ORDER IN THINKORSWIM

The screenshot shows the Thinkorswim interface with several numbered callouts:

- 1** Points to the stock symbol "MNKY" in the top left.
- 2** Points to the Option Chain grid where a vertical spread is being selected.
- 3** Points to the Order Entry Tools section.
- 4** Points to the Order Queue where the "Vertical" strategy is chosen from a context menu.

OPTION CHAIN Spread: Single Layout: Last X, Net Change Exchange: Composite

CALLS	PUTS
Last X, Net Chng	Last X, Net Chng
Bid X Ask X Exp Strike Bid X Ask X	Bid X Ask X Exp Strike Bid X Ask X
JUL 13 (0) 100 (Weeklys)	SEP 13 .29 .22 I .24 C .25 Q -.02
AUG 13 (7) 100 (Weeklys)	SEP 13 30 .41 I .43 I .43 A -.08
AUG 13 (21) 100	SEP 13 31 .75 Q .76 I .77 I -.11
SEP 13 (56) 100	SEP 13 32 1.26 T 1.28 C 1.30 A -.10
2.55 C +.08 2.66 3 I	
1.80 Z +.18 1.82 C 37 I	
1.16 I +.14 1.16 I 1.8 Q	
.66 I +.08 .67 I .68 Q	

ORDER ENTRY TOOLS

ORDER ENTRY AND ORDER QUEUE

ORDER ENTRY

Spread	Side	Qty Sym...	Exp	Strike	Type	Link	Price	Ord...	Exch...
VERTICAL	BUY	+10	MSFT	SEP 13	32	CALL	.33	LMT	BEST
	SELL	-10	MSFT	SEP 13	33	CALL			

Advanced Order: Single Order

Order Queue Context Menu:

- BUY > Single
- SELL > Vertical
- BUY Custom
- SELL Custom
- Alert on ASK
- Copy
- Quick Quote
- Add To Watch List
- Market Depth
- Trade Grid
- Quick Chart

- 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 see our website or contact TD Ameritrade at 800-669-3900 for options disclosure documents. Carefully read these documents before investing in options.

- Spreads, Straddles, and other 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.

One of the most important and popular features on the thinkorswim platform is the spread order entry. To create an order, it takes but a few seconds and a few clicks.

1. Enter the Symbol

Go to the Trade page. In the upper left, fill in the box with the stock symbol and press <Enter>. With the available calls and puts now in front of you, choose the expiration you want.

2. Pick the Strategy

Next, right-click the ask or bid of the option you want to buy or sell and in the menu that opens up (right), scroll down and choose "BUY," then "Vertical."

3. Adjust the Order

You'll see your vertical order at the bottom of the Order Entry section, below the option chain. From here, you can change the quantity of spreads, the strikes, expirations, etc.

Bid X	Ask X	Exp	Strike	Bid X	Ask X
2.68 C	2.73 I	SEP 13	29	.22 I	.24 C
1.82 C	1.87 I	SEP 13	30	.41 I	.43 I
1.16 I	1.18 Q	SEP 13	31	.75 Q	.76 I
.67 I	.68 Q	SEP 13	32	1.26 T	1.28 C

BUY	> Single
SELL	> Vertical
BUY Custom	> Back/Ratio
SELL Custom	> Calendar
Alert on ASK	Diagonal
Copy	Straddle
Quick Quote	Strangle
Add To Watch List	Covered Stock
Market Depth	Collar/Synthetic (Combo)
Trade Grid	Butterfly
Quick Chart	Condor

For illustrative purposes only. Past performance does not guarantee future results.

4. Place the Order

When you're happy with the spread you want, click Confirm and Send. The Order Confirmation Dialog box will give you one last chance to check the details before you click the Send button and work a live order.

CHAPTER 11

KILLING TIME

• CALENDAR SPREADS

Stocks move up. Stocks move down. But a lot of the time, they're not doing much of anything. If you're looking for a way to trade a stock stuck in a range, consider a calendar spread.



Imagine you could profit when nothing happens. That's exactly what a calendar spread is designed to do. And the nice thing is, you don't have to hit a bulls eye on price. You put on a calendar when you think the stock or index is going to trade in a certain range for a period of time. As long as the stock cooperates and volatility remains stable, the calendar profits from something that, as option traders, we both fear and need—the passage of time.

PITCHING TENTS

A long calendar spread is the simultaneous sale of a near (front) term call or put and the purchase of a far (back) term call or put of the same strike price. The long and short options in a calendar spread are either both calls or both puts, and are designed to collect the theta decay of the short option in the spread while maximizing the time value of the longer term option.

Because of the unique nature of the two options, the potential profit zone generally looks like a "tent" in its risk/reward profile (see Figure 1).

Long calendar spreads, also referred to as "time spreads" or "horizontal spreads," can be positioned as a market-neutral strategy (range-trade) that profits from time decay, or even to speculate on market direction. You simply pick the strike price you believe the underlying will close at the expiration of the near term option and the trade profits as time passes.

Along with verticals, the long calendar

spread is one of the basic spread positions that is used by traders of all experience levels, and is a component of more complex spreads. Long calendars feature low capital requirements, zero margin, defined-risk, wide profit ranges, and opportunities to collect premium from rolling short front month options forward (which we'll cover later in the chapter).

To illustrate, take a look at the put-option chain on MNKY stock (Figure 2, next page), trading at \$32.

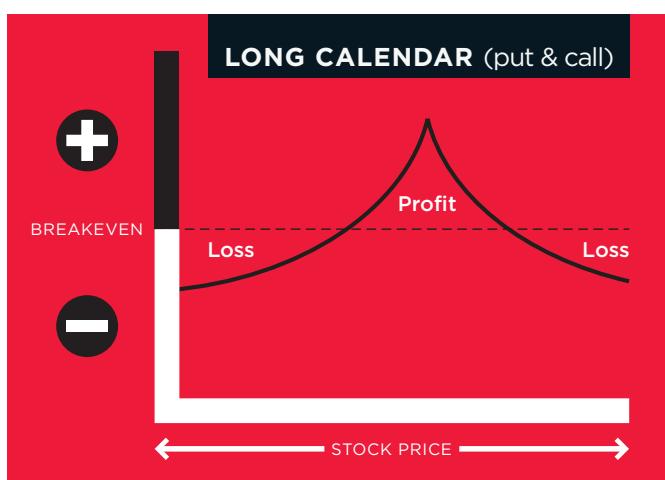
If you think MNKY might trade sideways for a while, and stay around \$32 by September's expiration, you might look to trade the September/November at-the-money put calendar spread.

1. Buy the November 32 put for \$1.65

2. Sell the October 32 put for \$1.09

Total debit = \$0.56 (or \$56 per spread)

Figure 1: Calendar spread profit curve. For illustrative purposes only.



SOMETHING FOR NOTHING

How do you profit from the passage of time? Remember theta (chapter 9)? It's the rate of change of an option as each day passes. If, as expected, the shorter-term option decays at a faster rate than the longer-term option, the spread "widens" and you may be able to close out the spread for a profit.

As Figure 3 shows (next page), all things equal, were MNKY to finish at \$32 at the short option's expiration, your short option would be worth \$0, while the long option might have decayed only \$0.59, and now have a value of \$1.06. Since your original cost of the trade was \$0.56, and the long option can now be sold for \$1.09, your

CALLS			PUTS				
Net Chng	Bid X	Ask X	Exp	Strike	Bid X	Ask X	Net Chng
► AUG2 13 (4) 100 (Weekly)							19.24% (± 0.532)
► AUG 13 (11) 100							21.62% (± 0.965)
▼ SEP 13 (46) 100							19.47% (± 1.758)
.20	3.65 I	3.75 X	SEP 13	28	.07 N	.08 I	-.01
-.09	2.68 I	2.73 I	SEP 13	29	.14 I	.15 I	-.01
-.13	1.79 C	1.81 Z	SEP 13	30	.29 C	.30 Q	+.01
-.14	1.07 I	1.09 M	SEP 13	31	.59 C	.61 N	+.04
-.10	.57 Q	.58 N	SEP 13	32	1.09 I	1.11 I	+.09
-.04	.26 Q	.27 N	SEP 13	33	1.78 I	1.81 A	+.06
-.02	.11 Q	.12 I	SEP 13	34	2.63 N	2.66 A	+.06
0	.05 N	.06 C	SEP 13	35	3.55 I	3.60 X	+.11
► OCT 13 (74) 100							20.42% (± 2.338)
▼ NOV 13 (102) 100							22.04% (± 2.966)
0	3.75 X	3.90 X	NOV 13	28	.31 N	.33 C	0
+.05	2.95 X	2.99 N	NOV 13	29	.49 N	.51 C	-.04
-.05	2.20 X	2.26 X	NOV 13	30	.75 A	.77 I	+.03
-.03	1.60 C	1.63 M	NOV 13	31	1.13 N	1.15 C	+.02
-.07	1.10 C	1.13 I	NOV 13	32	1.62 N	1.65 C	+.05
-.07	.72 X	.74 N	NOV 13	33	2.24 N	2.27 C	-.09
-.04	.46 I	.47 N	NOV 13	34	2.97 N	3.00 C	0
-.05	.28 I	.30 C	NOV 13	35	3.76 X	3.86 X	0

Figure 2: Constructing a calendar spread. The 32-strike Sep/Nov at-the-money put calendar is purchased by selling the September 32-strike put and buying the November 32-strike put. For illustrative purposes only.

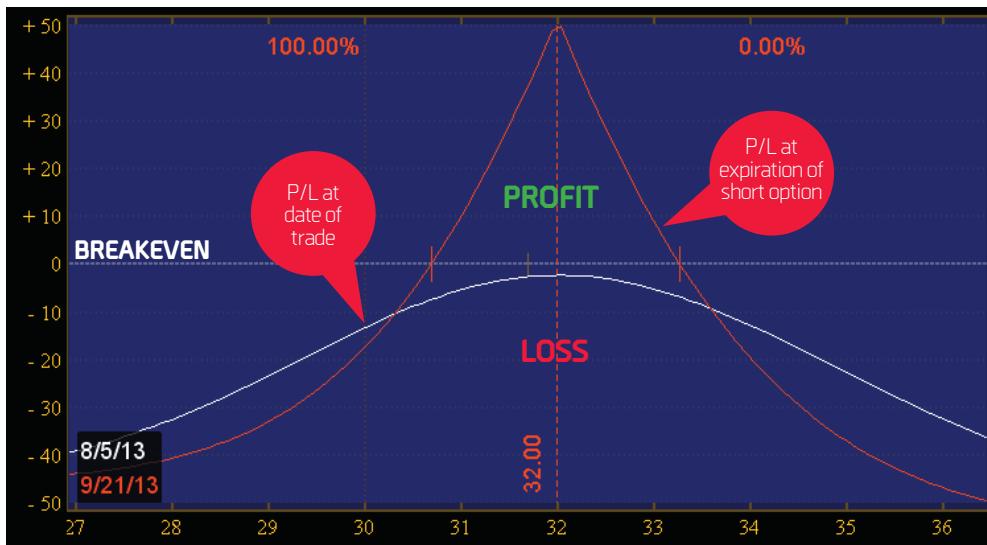


Figure 3: Long put calendar profit curve. It's hard to know exactly how a calendar will pan out. But with inputs specific to your positions, the thinkorswim® platform can paint a clearer picture of how your position may pan out by plotting a hypothetical profit curve of the trade between inception and expiration of the short option. For illustrative purposes only.

profit is \$50 (less commissions and fees), as shown in Figure 3. It's not always this perfect, but you get the idea.

BREAKING IT DOWN

Regarding long calendars on equities, note the following:

- The time value of an option is the highest when it's at the money (32-strike). So, the calendar spread is worth the most money when it closes at the money of the near-term short option.
- The calendar spread is worth approximately the same if the selected strike closes an equal distance in or out of the money. Note if the stock is at 31 or at 33 at expiration,

the spread is worth the same (\$0.10).

- If, in the MNKY trade, you paid \$0.56 for this calendar spread, you can see that you would likely profit if the stock is between approximately \$30.50 and \$33.50 at expiration of the near-term option.
- Since both options use the same strike prices, any intrinsic value will be the same for both. They will cancel each other out because you are buying one option and selling the other. Remember, you can only make money on time value.

Maximum Profit

The calendar spread will be worth the most money when the stock is at the same price of the strike selected (32) at expira-



GREEK SPEAK

We'll avoid a full-blown discussion about options greeks for now, but it helps to know how they make the calendar spread tick.

Delta—If both strategy options are near or at the money, the difference in delta between the long and short options is likely to be small. (This is often referred to as the trade being “delta neutral”—meaning the positive deltas in the spread cancel the negative deltas and, at that moment, pose no directional risk). However, as the options move significantly in or out of the money, the deltas can pile up in the shorter-term options faster than the longer-term options and ultimately work against you.

Theta—Near-term options have greater theta (a measure of time-decay sensitivity) than longer-term options. So provided your stock remains in a trading range, you might expect to collect a small amount on this trade because time decay is in your favor. This time element, similar to that of the covered-call position, represents how you will typically expect to make your money.

Vega—Then there's volatility (vega) to consider. Because calendars are “positive vega,” they benefit from increased rather than decreased volatility. So it's generally a good idea to put on a calendar spread in a low-volatility environment, where there's a better chance of volatility rising, rather than dropping, in the short term.

tion of the front-month option (Sep). This is when the front-month short option expires worthless, and the back-month long option (Nov) has the greatest time (extrinsic) value as it's the at-the-money option. If the underlying price doesn't settle exactly at the strike price, any intrinsic value would be cancelled out because both options have the same strike price. The value of the calendar spread depends on its implied volatility, expiration date, and movement of the underlying which all change over time.

When a calendar spread is purchased and there is more than one month separating the short and long options, the profit of a calendar spread can be augmented by “rolling” the short front month option to the next expiration month for a credit. Rolling is the process of buying back the short option near expiration and simultaneously selling the next expiration month's same strike option. For example, in our Sep/Nov put calendar on MNKY, there is one roll “embedded” in the trade. You can roll the short September put to October at some point.

The rolls have the greatest value when the underlying price is right at the money, which permits you to sell the next month option for the greatest amount of time value as well.

Maximum Loss

Calendar spreads are executed for debits, and the maximum loss on a calendar spread is the original debit (cost) of putting on the trade, plus commission. Maximum loss occurs when the underlying price has moved far away from the strike price of the calendar spread and the long back month has \$0 extrinsic value.

Break-even points

The break-even points of a calendar spread are the points above and below the calendar spread's strike price that the underlying can close at the expiration of the near-term option where the far-term option's time value is equal to the amount paid for the spread. It is highly recommended to use thinkorswim's Analyze page tools, such as the profit curve (Figure 3), to help you determine break-even points.

Capital Requirement

The capital requirement for a long calendar spread is simply the net debit equal to the long option premium, minus the short option premium, plus commissions.

CALENDAR TIPS

If you're feeling giddy about calendars, consider a few helpful hints before you dive in.

1. Pick a stock that is range-bound but not comatose.

You typically want to engage stocks that trade in a decent range but don't flat line. Without some volatility, there's potentially little premium to sell. Pick the strike price of the calendar spread by selecting the strike that is nearest to where you believe the stock will close at the expiration of the near term short options.

NOTE: Despite what they were designed for, calendar spreads can also be viewed as a target trade , whereby you can choose the out-of-the-money strike to place your calendar spread based on where you think the stock will go by expiration (i.e., the “target”).

2. Implied volatilities should be near the low end of their range.

Because this is a vega-positive trade, an overall rise in implied volatility tends to help your position. You want to give yourself a decent chance to catch the occasional jump in the levels of overall implied volatility

3. Have a roll.

The calendar spreads that have the best probability of making money are those with at least one roll embedded in them (that is, with a month in between the expiration months of the short and long options).

4. Decide between calls and puts.

Although call and put calendars accomplish the same thing, ideally you want to stick with the spread that holds the out-of-the-money options. By doing so, you're typically exposed to tighter bid-ask spreads, and as an added benefit, you minimize the likelihood (and nuisance) of early assignment. Typically, you would use put calendars if the strike you selected is below the current stock price and

use call calendars if the strike you selected is above the current stock price.

5. Be ready to act on expiration week.

While calendars are trades in which time decay typically works in your favor, the water can get a bit cloudy during ex-

piration week. Sometimes, the near-term option has decayed so much that the incremental benefit of holding the trade one more day is outweighed by the far-greater exposure in the higher-priced, longer-term option. In fact, at any point during the trade, where there's no more reward, but



HOW TO PLACE A CALENDAR IN THINKORSWIM

Once you feel comfortable with a calendar you're considering and its volatility backdrop, it's time to place the trade. The process is virtually identical to placing a vertical spread, which we discussed in the previous chapter. And the easiest way to do this is from the Trade page.

CALLS	Bid X	Ask X	Exp	Strikes	Bid X	Ask X	Net Chng
Net Chng							
AUG2 13 (3) 100 (Weekly)	31.65 P	31.71 P	8 x 1	30.986,512	.29 C	.30 Q	19.41% (+0.532)
AUG 13 (10) 100					.59 C	.61 N	21.69% (+0.965)
SEP 13 (45) 100					1.09 I	1.11 I	19.49% (+1.758)
- .13	1.79 C	1.81 Z	SEP 13				
- .14	1.07 I	1.09 M	SEP 13				
- .10	.57 Q	.58 N	SEP 13				
- .04	.26 Q	.27 N	SEP 13				
OCT 13 (73) 100							20.43% (+2.338)
NOV 13 (101) 100							22.05% (+2.966)
- .05	2.20 X	2.26 X	NOV 13	30	.75 A	.77 I	+ .03
- .03	1.60 C	1.63 M	NOV 13	31	1.13 N	1.15 C	+ .02
- .07	1.10 C	1.13 I	NOV 13	32	1.62 N	1.65 C	+ .05
- .07	.72 X	.74 N	NOV 13	33	2.24 N	2.27 C	+ .06
JAN 14 (164) 100							

ORDER ENTRY TOOLS

ORDER ENTRY AND ORDER QUEUE

ORDER ENTRY ORDER QUEUE

Spread	Side	Qty	Qty Pos	Eff.	Sym...	Exp	Strike	Type	Link	Price	Order	TIF	Exch...	Tax Method
CALENDAR	BUY	+10	+10	AUTO		NOV 13	32	PUT		.56 - LMT	LIMIT	DAY	BEST	
	SELL	-10	-10	AUTO		SEP 13	32	PUT						DEBIT

Advanced Order: Single Order Expected MNKY Price: 32.05 (0) Mid: 3.05 3.10 Nat

Delete Confirm and Send

For illustrative purposes only.

1. Enter the Symbol

Go to the Trade page. In the upper left, fill in the box with the stock symbol and press <ENTER>. With the available calls and puts now in front of you, choose the expiration you want.

2. Pick the Strategy

Next, right-click the ask or bid of the option you want to buy or sell and in the menu that opens up (right), scroll down and choose "BUY," then "Calendar."

SEP 13	30	.29 C	.30 Q	+ .01
SEP 13	31	.59 C	.61 N	+ .04
SEP 13	32	1.09 I	BUY Single	3
SEP 13	33	1.78 I	SELL Vertical	3
SEP 13	34	2.63 N	BUY Custom BackRatio	3
SEP 13	35	3.55 I	SELL Custom Calendar Diagonal	1
			Alert on Bid	
			Straddle	
			Quick Quote	
			Add To Watch List	Covered Stock
			Market Depth	Collar/Synthetic (C)
			Trade Grid	Butterfly
			Quick Chart	Condor
			TOS Charts	Iron Condor
			Prophet	Vertical Roll
			Send To	Collar with Stock
			Create New Note	Double Diagonal

3. Adjust the Order

You'll see your calendar order at the bottom of the Order Entry section, below the option chain. From here, you can change the quantity of spreads, the strikes, expirations, etc.

4. Place the Order

When you're happy with the spread you want, click Confirm and Send. The Order Confirmation Dialog box will give you one last chance to check the details before you click the Send button and work a live order.

• 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 see our website or contact TD Ameritrade at 800-669-3900 for options disclosure documents. Carefully read these documents before investing in options.

• Spreads, Straddles, and other 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.

• 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 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.)

plenty of risk, that usually represents a good point to close out the trade.

SOME LINGERING QUESTIONS

Q: How much buying power (i.e., trading capital) does it take to buy a calendar spread?

A: You only need option buying power in your account high enough to cover the debit of the long calendar.

Q: Do I have to do anything with a calendar at expiration?

A: It depends on where the stock price is relative to the strike price of the calendar's options. There are three scenarios for the short-front month option at expiration: it's out of the money, in the money, or at the money.

Out of the money—You can let it expire worthless and leave on the long back-month option. If you do that, you'll have that long option's directional delta, as well as negative time decay and positive vega.

In the money—It will likely be assigned, and you'll have a synthetic position with the long-back month option with the delta, negative theta (a measure of an option's sensitivity to time decay), and positive vega, as well as the margin requirement on the stock position.

At the money—You can't be sure what you'll have at expiration. Generally, you

should consider either rolling the short option to the next expiration, or close the calendar before the short option expires.

Q: What if I'm assigned on the short option before expiration?

A: That can certainly happen, especially with short call calendars on stocks that pay dividends. If you're assigned on a short call, you'll end up with a short stock position in your account and the calendar's long back-month option. The margin would be the margin on the short stock, and would be prohibited in an IRA. You could either buy the stock back and sell the long back-month option to close the position, or exercise the long-back month option. Get in touch with your broker to help you evaluate the better choice. Remember, short options can be assigned at any time up to expiration, regardless of the in-the-money amount.

WHEN TRADING EQUITY OPTIONS, CALENDAR spreads can provide an opportunity to collect time decay for a fraction of the overall risk of a covered-call position. In fact, while a calendar's maximum risk is typically limited to the debit paid, the strategy only rarely achieves maximum loss because the front-month option loses all its time value, while the longer-term option tends to hold residual value. That's not to say you can't lose all your investment. But it's comforting to know it's a blue-moon scenario.

HOW TO CHECK YOUR HEAD

12 RISK
MANAGEMENT TIPS

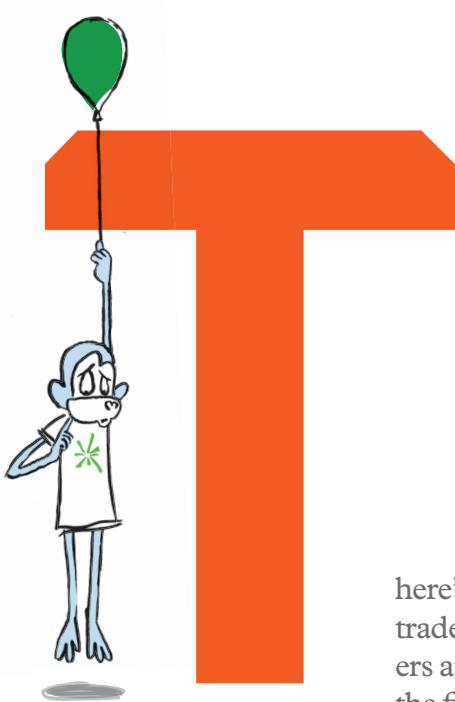
13 HOW TO CREATE
A TRADING SYSTEM

14 DEALING WITH
DRAWDOWNS



501

TRADE
MANAGEMENT



here's a story about Richard Dennis, a legendary futures trader, talking about rookie traders. He said that new traders are like baby ducks. When a baby duck hatches, it thinks the first thing it sees is its mother. If the first thing it sees is a battleship, the duckling will follow that battleship around forever. Traders can be the same way. The first big market event they experience—whether it's a market crash and a big loss, or an unending rally and a big profit—they think that's the way the market always works. And that kind of baby-duck thinking can be lethal to your trading account and portfolio.

If you first start to trade when the market has been rallying for a while, you might think markets just go up all the time. Then when the market crashes, the shock of it will not only cost you money; it will make you nervous that another crash might happen. This can cripple the way you trade.

As a new trader you can feel all kinds of things. If the markets are making new highs, you can worry that the market will soon fall. Or you can worry you're on the sidelines and not buying stocks and getting a piece of the current rally. You can feel the rush of maybe stepping in and buying at good prices should the market in fact fall. But then of course the market might keep rising. Or start a crash and hit new bottoms. In a word, you just never know. The fear of "missing the boat" during a rally can be as dangerous as the fear of losing money with falling markets. Both can create inertia and cripple the way you trade.

The point? As a trader, you learn skills. You gather tools and wisdom and expertise. You study the data. You hone your instincts. You learn to trade what is there, not what you want to be there. You are not at the mercy of the market; you learn to keep your wits about you as you manage risky trades as well as your own expectations so you'll know what to do should markets turn. You learn how to plan trades and follow crucial signals before, during, and after a trade.

At the end of the day, it isn't the direction the stock market is taking that matters but how you react. Learning to trade is the easy part. Learning to control your anxiety, your fear, your desires, and your hopes is something else entirely.

● RISK MANAGEMENT TIPS

TRADING FOR THE 99%

For most successful traders, the “1%” isn’t about the “haves” versus the “have-nots.” It’s about a tiny group of traders making logical, well-planned decisions versus those who mostly shoot from the hip and trade on hope. And it’s likely the only thing separating them from you is actionable knowledge.



Trading for the 99%? What the heck does that mean? Well, it doesn't mean doing what 99% of investors do, which tends to be the same old thing. You know, trying to time the market and missing it. Trying to find the next hot stock but finding that it doesn't outperform the broader market. Watching interest rates on savings or cash sit near zero.

No matter your trading habits and where you stand on trading's behavioral spectrum, rules do apply for creating strong portfolios in which risk is theoretically more controlled and your trading results are better managed. Consider a few pointers:

1. Understand the strategy
2. Manage your winners, not your losers
3. Control your position size and risk

1. Understand the Strategy

Stocks are unpredictable. Sure, you might think a stock could go higher. But if the broader market is sinking, it would have to be an unusual stock to buck that trend. Consistently picking the right direction for any stock or market is impossible. That's why strategy selection is so crucial. With options, there are unique risks such as time decay (theta) and volatility (vega) that can work against you, even if the direction of the underlying stock is working in your favor. Get yourself properly schooled about the basics of protecting your stocks, and the various options strategies designed to help you profit from uncertain market conditions.

For example, if you're moderately bullish in the short term, but volatility is high, a long call option is likely going to be expensive and risky to buy. However, short verticals, designed to profit from higher volatility conditions and rapid time decay,

might make sense. In general, hope is not a strategy. So carefully choosing approaches designed to profit under particular market circumstances doesn't guarantee success. But it does make sense to think about the results you desire, make a plan, and act.

2. Manage Your Winners, Not Your Losers

There will be times when you realize a small gain in a trade, only to exit at a loss because you were trying to cut your losses short and let your winners run. "Letting your winners run" sounds great in theory. But stocks go up and down. Not just up. The market moves up and down in cycles, like a sine wave. So, on any given day after you put on trades, you could show a profit or loss, or you could be breaking even.

One useful approach: take your profits when the market presents them, rather than hanging on too long. This may fly in the face of the "let your winners run" mantra and certainly challenges the human impulse to want more. But for certain types of strategies, you'll see that it starts to make sense.

For example, think about why you put on a trade in the first place. Was it a speculation on price? On volatility? On a Federal Reserve meeting or earnings headline? Should the event you anticipate happen and your trade become profitable, consider capturing the profit if there's little impetus for more gains. In markets where volatility

is higher, both beneficial and adverse price moves can happen quickly. Have a profit target in mind that takes into account all these factors, including commissions and fees. When the stock or index price moves “your” way, and the position hits its profit target, or perhaps comes just short of it but there’s little impetus for more gains, consider taking off the trade.

3. Control Your Position Size and Risk

How much should you risk on each trade? Whatever helps you sleep at night. That may sound like a generalization, but you have to assume that the worst can happen and your trade could get wiped out. If it does, what’s the amount of capital that you’re comfortable with losing? As a general rule of thumb, risking more than 5% of your capital per trade is better left to thrill-seekers.

Allocating small, consistent amounts of risk for each trade—even when your convictions are strong—and keeping capital requirements low lets you put on more, and smaller, positions. Even if a single trade has the same capital requirements and risk as a series of smaller trades, that trade could become a 100% loser and take you out of business. Of course, it’s also possible to lose 100% on a basket of smaller trades, but before you blew out your account, you could stop the bleeding and preserve your capital by not placing the next trade.

Here’s a hard fact: after you place a trade, any type of profit you might realize will take some time. So try not to panic if your trade goes against you immediately after you place it. Regardless of your strategy, you need to hold a position long enough for it to benefit from what it was designed to do, without having it create a **margin call** or large loss. Taken together, this is known

as risk and capital (or money) management. And that’s why knowing the margin requirements of a position is so important. You can see the margin requirements for different positions using the thinkorswim® platform.

AS YOU LEARN TO TRADE YOUR PORTFOLIO, look to engage strategies with a higher probability of success, and with capital allocated more or less equally across positions—so any one position can’t have a damaging impact on your net profit and loss (P/L). Above all, think about longevity.

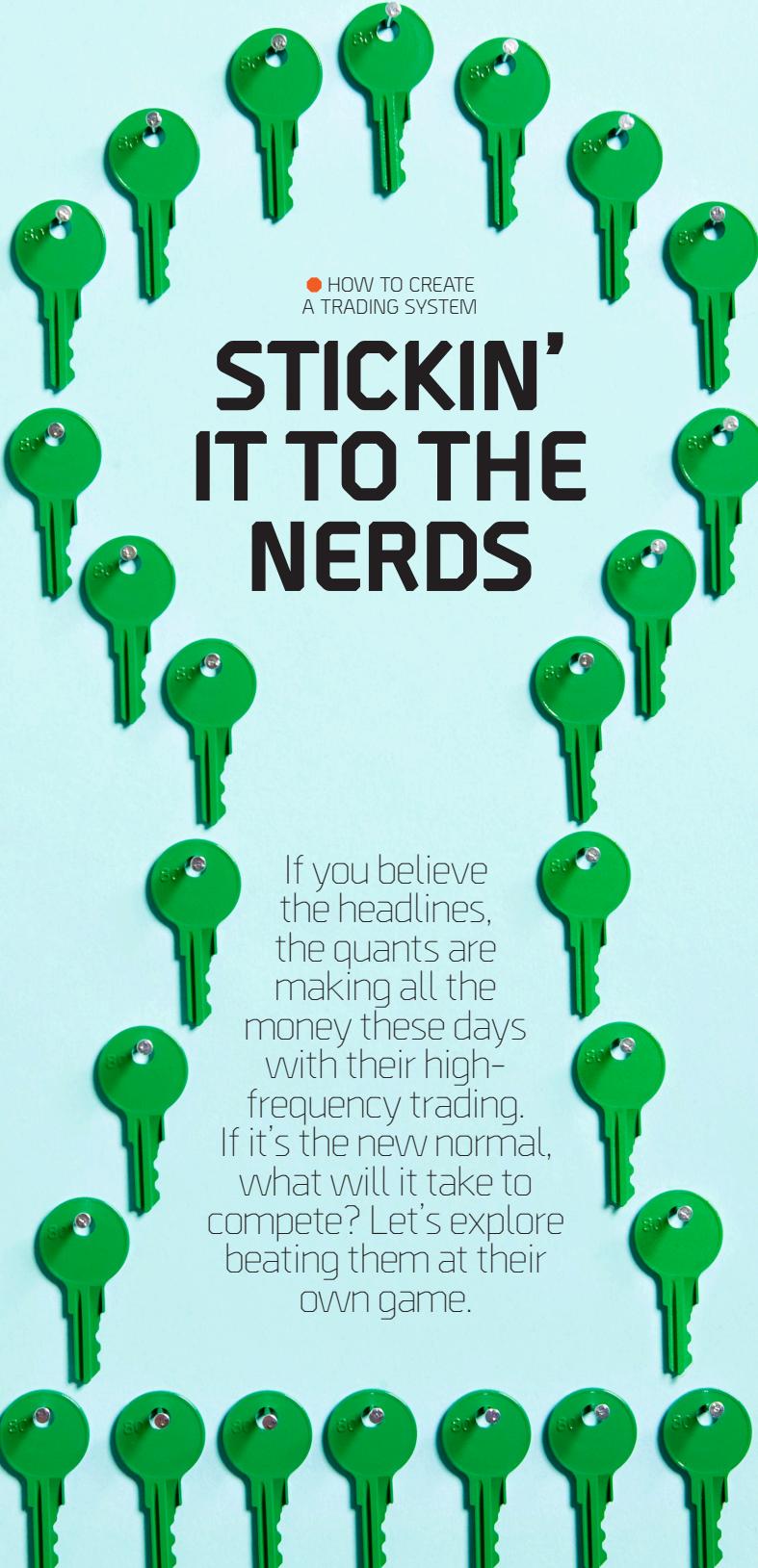
Trading well takes practice, patience, and time. Choosing trades based on defined risk, potential reward, low capital and margin requirements, combined with high-success probabilities, and taking profits when they present themselves, is a way for the rest of us to enter the 1% and compete with the big guys by playing their game—and ultimately ours.



TRADER JARGON

Margin call—When a security you have purchased on margin (borrowed funds from the broker) falls in value below a certain point allowed by the broker, the broker requires you to deposit more funds or sell one or more of your assets to raise cash.

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● HOW TO CREATE
A TRADING SYSTEM

STICKIN' IT TO THE NERDS

If you believe the headlines, the quants are making all the money these days with their high-frequency trading. If it's the new normal, what will it take to compete? Let's explore beating them at their own game.

As a kid, did you ever dream of becoming a nerd? Probably not. But in today's market, it's the nerds, or "quants"—those traders schooled in computer theory, math, physics, or whatever, who've made a lot of money with computerized, high-frequency trading—who seem to have come out ahead. High-frequency trading (HFT) simply means high-volume, split-second, machine-driven buys and sells that net maybe a few cents per 100 shares. Doesn't sound like a lot of money. But multiply that by hundreds of thousands of shares across thousands of trades a day and it adds up fast. In fact, HFT accounts for a good majority of trading volume as recently as 2013.

And as you power up your laptop, you might wonder: is that what I have to do to make money as a trader? The short answer? No. The longer answer? Absolutely no.

VOLATILITY AND QUANTS

In recent years, quants have been responding to a stock market in which sharp price swings have forced many who developed computerized trading to rethink their strategies. The short-term, back-and-forth price movements that computerized trading is supposed to capture have become more uni-directional, and have left some traders with large losing positions.

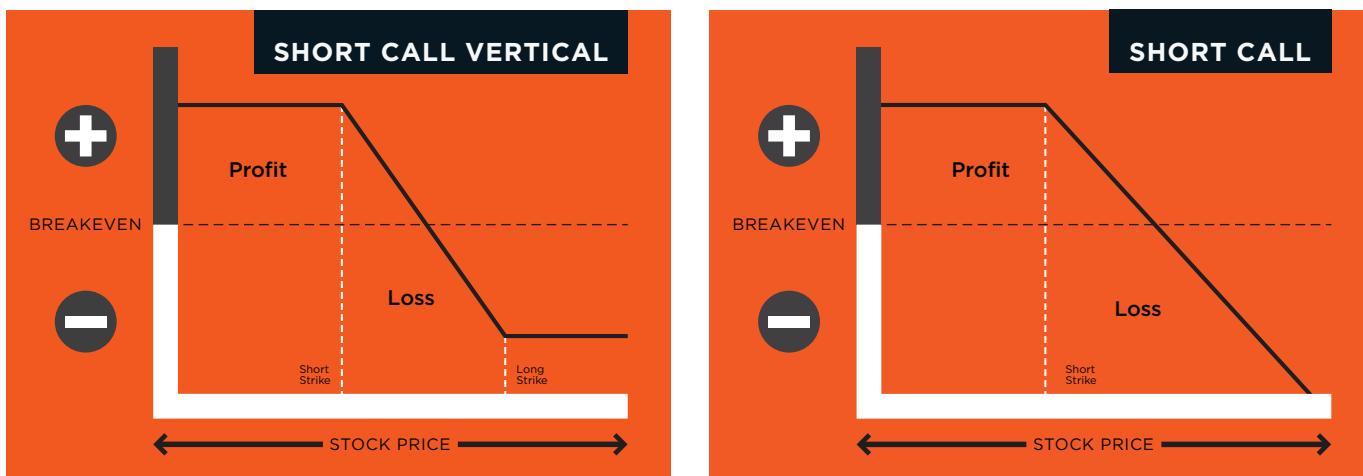
Naturally you might ask: if not high-frequency, computerized trading, then what? Despite the sexy bells and whistles of micro-second trading, in point of fact you help protect your trades and your portfolio long term with a defined, thoughtful strategy informing your approach. So regardless of a given stock or index, and regardless of the market environment, you can potentially

find and execute trades that makes sense. You do this by creating a system. And this means you need to develop a set of rules that you follow for getting in and out of trades rather than simply shooting from the hip. Your system may not always give you the results you expected or make you money or get your picture in the paper. But you may avoid the giddy, gravity-defying, less-predictable roller-coaster experience a lot of traders have.

TRADE OPTIONS WITH A 1-2-3 SYSTEM

So, how do you create a system? For starters, the thinkorswim® platform puts tools at your disposal designed to offer more than what a lot of the Wall Street nerds have. Seriously. And you can use these tools strategically to find options trades that meet the following criteria:

1. Trades with defined risk
2. Trades with positive time decay
3. Trades with favorable probabilities

**Figure 1:** Vertical safety net.

The risk profile of a short call vertical (left) and a short naked call (right). Notice the naked call continues to lose money no matter how high the stock goes. Whereas, the defined-risk, short call vertical stops losing money when the stock rises above the higher (long) strike. *For illustrative purposes only.*

1. Trades With Defined Risk

When you define your risk, no matter what the stock or index does—whether it goes up big, drops big, or goes nowhere at all—your maximum potential loss is mostly known before you even enter the trade.

For example, if you’re bearish on a stock, a short call vertical (see Section 401 on options spreads) has defined risk. But a short naked call (Section 301) doesn’t. See Figure 1.

With the short vertical, the maximum loss is the difference between the strike prices, minus the credit received (plus commissions and fees). That’s it. With a naked short call, you don’t really know what your maximum loss might be. Even if you think you’ll use a stop order to buy the short call back if the loss gets too great, what if the stock gaps higher overnight, when you can’t trade? In a word, stick with defined-risk trades.

2. Trades With Positive Time Decay

Besides death and taxes, the only other thing you can count on is time passing. So you want time to work in your favor. And you want your positions to have positive time decay so that all things being equal, one day passing means your position is worth a little bit more. Positive time decay generally comes from having a short option somewhere in the position. It doesn’t have to be a naked short (see #1 above), but as part of a spread like a short vertical, or long calendar, a short option will put time on your side.

3. Trades With Favorable Probabilities

No matter how much research you do, the probability of a stock or index moving up or down is 50%. But you don’t want your trading to depend on the flip of a coin. The way to help tip the odds in your favor is by having a smarter strategy. That begins by searching the option chain for a shorter-term expiration and a high probability of expiring worthless. This will let you create spreads that depend less on being right on direction and more on premium decay.

A TALE OF TWO TRADERS

Whether you’re an aspiring stock trader or options trader, here are a couple of ideas to help you implement this plan that you won’t find in the typical Wall Street story.

The Stock Trader

If for the moment you’re exclusively a stock trader, maybe you’re not quite ready for all the options stuff. So how do the three trading criteria work for you?

For criteria #1—defining risk—if you’re long stock, you already know your maximum potential loss if the stock goes to zero. Even though that risk might be a large number, it’s defined in its own way.

For criteria #2—time decay—you can write (sell short) a **covered call** against a long stock you own to give you some positive time decay. When you’re short a call against your long stock, for each day that the stock price doesn’t move, that short call is going to get cheaper and cheaper, and make you a little bit of money.



TRADER JARGON

Covered call—A 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.



Figure 2: A “covered call” strategy capitalizes on the three criteria: (1) defining your risk (the price of the stock is your max risk), (2) selling the call creates positive time decay, and (3) choosing a strike that has a greater than 50% chance of expiring out of the money. Notice the Aug 32 call shown here is displaying 38% probability of expiring in the money, which is the same as saying it has a 62% probability of expiring worthless. *For illustrative purposes only.*

For criteria #3—favorable probabilities—getting the odds on your side means selling an out-of-the-money call that has a probability of expiring worthless about 60% of the time. You can see the probability numbers of these calls on the thinkorswim platform (see Figure 2). The stock can rise up to the strike price of the short call by expiration, and the call will still expire worthless. That reduces the cost basis of your long stock, which also lowers its breakeven point. That means the stock can make a larger move down, and you still might not lose money.



THE OPTIONS TRADER

You’re raring to get going with options, but you’re not sure whether you should be bullish or bearish on a particular stock or index. Don’t sweat the direction of the stock. Using the three criteria above, you can find a strategy that may still make money even if you’re wrong on your directional bet. Let’s see how.

For criteria #1 and #2—*using defined-risk strategies with positive time decay*—start with some directional bias for the stock or index. Maybe it’s based on technical or fundamental analysis (see Section 201), or maybe your favorite talking head on TV



Figure 3: Virtues of a Nerd

Trade. Using the put strikes from Figure 2, the Aug 30/31 put is selling for \$0.34. At \$31.57 currently, MNKY would have to trade below \$30.66 at expiration to start to lose money. For illustrative purposes only.



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- Spreads, Straddles, and other 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.

- 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 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.)

suggested it. We're going to create a short vertical spread—a short put vertical if you have a bullish bias, or a short call vertical if you have a bearish bias. Start by finding an expiration ranging from 25 to 45 days.

For criteria #3—*using favorable odds*—if you're bearish, find the out-of-the-money short put that has a 60% to 70% probability of expiring worthless. If you're bullish, consider finding the out-of-the-money short put that has a probability of expiring worthless of between 60% and 70%. To create a short put vertical, consider buying the put option that's one strike further out-of-the-money than your short put. To create a short-call vertical, consider buying the call option that's one strike further out of the money than your short call. (Use Figure 2 for this exercise. Suppose you had your sights set on a trading a short put vertical. Which of the four put strikes shown here would you think about selling as the short leg?)

Refer to Figure 3. Here's what can happen with the short out-of-the-money put

vertical, for example, if by expiration:

- 1. Stock moves up** = you make money.
- 2. Stock stays above short strike** = you make money.
- 3. Stock moves down past the short strike** = you'll probably lose money.

The short call vertical works the same way, but loses money if the stock moves up past the short strike of the short put vertical. (For either strategy, always keep in mind that transaction costs will also impact the total profit or loss of the trade!)

THIS IS NOT A FOOL-PROOF WAY OF making money in the market. But it's better than sitting on the sidelines, frustrated and confused and not being able to trade the way you think the Wall Street pros do it. Each trade you make based on these criteria should have some reasoning behind it. And even if the trade loses money, you'll know exactly how much and why. That's being an educated trader. Instead of a nerd.



● DEALING WITH DRAWDOWNS

ADJUSTING YOUR CHAPTER 14 ATTITUDE IN FOUR STEPS

A string of losses stinks, but there's hope for getting back in the game.

At some point in your trading career, you may experience the jolt of a fairly large drawdown—a hit to your trading capital, affecting your trading curve—either through a string of losses or one big one. Either way, this is every trader's cross to bear. So how you cope with the situation may not only define the depth of the loss, but also how you recover.

"It's only money," you say. Yeah, right. Drawdowns are real. And they often cause traders to question their skills, leading to fear, doubt, and more careless mistakes. After all, we're only as good as our last worst trade, right? Wrong. Past experiences and fear of mistakes can skew a trader's frame of mind, making it difficult to deal with stressful situations in the future. But there's good news.

GET OVER IT

As a trader, drawdowns are a fact of life. Just as the market moves up and down, so goes your trading account. One thing to consider: Don't let your account drop too much while you give your trades room to work themselves out. Feelings of regret from a large loss can lead to further errors in judgment—such as rationalizing why you should hold losing positions. Research by the Econometric Society shows that the second \$100 loss is easier to take than the first. The third \$100 is easier than the second, until at some point the trade becomes a long-term investment regardless of your original strategy.

GETTING BACK IN THE GAME

Avoiding drawdowns is impossible. However, the negative effects—both financial and psychological—can be mitigated. How?

1. Plan again. Have a vision of what you're trying to accomplish the next time out. Then design a trading plan for what you need your trading account to do on a weekly and monthly basis. Having long-term goals, and then managing positions in alignment with those goals, will keep you less myopic and more focused on the prize.

2. Size your positions well. Too much size and a sudden, adverse event can be devastating. Too little size, and a favorable market barely moves the needle. Figure out the position size and risk that works for your P/L and stick with that.

3. Get out. There's no shame in shedding trades that are losers. If things turn for the worse, start scaling out of positions. Don't let ego, hopes, or fears paralyze you. As the old saying goes, "Sell down to the sleeping level."

4. Get back in (when you're ready). After a large drawdown, you may be afraid to get back on the dance floor. That's fine. Perhaps you go back to paper trading using paperMoney® on the thinkorswim® platform until you're ready to put real dollars back to work. When you do, start small. Put on a smaller portion of the positions than you normally would. The first goal isn't to get back what you lost. It's more about regaining your confidence.



DIG IN!

Sadly, we're at the end of this manual. But don't worry. There's plenty more for you to learn at the thinkorswim Learning Center at:

www.tlc.learningcenter.com

IMPORTANT INFORMATION



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• 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 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.)

• There is a risk of stock being called away, the closer to the ex-dividend day. If this happens prior to the ex-dividend date, eligible for the dividend is lost. Income generated is at risk should the position moves against the investor, if the investor later buys the call back at a higher price. The investor can also lose the stock position if assigned.

• A long call or put option position places the entire cost of the option position at risk. Should an individual long call or long put position expire worthless, the entire cost of the position would be lost.

• The risk of loss on an uncovered call option position is potentially unlimited since there is no limit to the price increase of the underlying security. The naked put strategy includes a high risk of purchasing

the corresponding stock at the strike price when the market price of the stock will likely be lower. Naked option strategies involve the highest amount of risk and are only appropriate for traders with the highest risk tolerance.

• With the protective put strategy, while the long put provides some temporary protection from a decline in the price of the corresponding stock, this does involve risking the entire cost of the put position. Should the long put position expire worthless, the entire cost of the put position would be lost.

• The information presented in this text book is for educational purposes only and is not a recommendation or endorsement of any particular investment or investment strategy. Returns will vary and all investments involve

risk, including loss of principal. Asset allocation and diversification do not ensure a profit nor eliminate the risk of investment losses.

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• Market volatility, volume and system availability may delay account access and trade executions.

• In order to demonstrate the functionality of the thinkorswim platform, actual symbols may be shown. They are for illustrative purposes only and are specifically not recommendations.

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involve substantial risks and are not suitable for all investors. Clients must consider all relevant risk factors, including their own personal financial situation, before trading. Trading privileges are subject to TD Ameritrade review and approval. Not all account owners will qualify.

• Past performance of a security or strategy does not guarantee future results or success.

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How to thinkorswim®

THE ART OF TRADING STOCKS &
OPTIONS, IN A NUTSHELL

What fans of thinkorswim are saying...

"Education is king when it comes to trading. You guys are awesome."

"You don't treat me like an idiot. Thank you."

"Love the monkey."

A Buffet of Trading How to and thinkorswim...

Are the days of "buy and hold" investing over? Hardly. But if you're looking for the other way to participate in the stock market—trading—that's what *How to thinkorswim* is all about. Filled with tips and tricks on how to use TD Ameritrade's popular thinkorswim trading platform, this guide will put you in the same playing field as most of the big wigs on Wall Street.

Broken down into five colorful sections, you'll learn about stocks, options, options spreads, how to size up a trade with charts and volatility analysis, how to place stock and options trades in the thinkorswim platform, and how to check your head when things go wrong.