

*Third Edition*

# Options made Easy



Your Guide to Profitable Trading

**Guy Cohen**

# Praise for *Options Made Easy*

“This is one of the best books on option strategies I have ever read.”

—**Daniel J. Zanger**, President, Chartpattern.com

“Guy Cohen builds a foundation for the reader with simple definitions and clear mechanics on what can be a complicated topic. He then approaches each strategy with a context of fundamental and technical analysis and sets the stage for a solid understanding of risk, reward, and probability.”

—**Dave Whitmore**, Senior Strategist, Investor Education, E\*Trade Financial

“Guy Cohen really does make options easy. Each options strategy has both a visual diagram of the risk and reward, as well as a logical explanation of how the strategy works. Combined with primers on fundamental and technical analysis, Guy shows you how to put the odds in your favor in today’s options markets.”

—**Price Headley**, Founder of BigTrends.com and author of *Big Trends in Trading*

“Guy Cohen has put together a comprehensive, easy to understand, must-read on options for investors of all levels. Practical in its approach, the graphics bring clarity to what beginning investors might consider complicated strategies.”

—**Joseph Sellitto**, CEO, Global Execution Brokers

“The best book on options I have ever come across.”

—**Alpesh B. Patel**, bestselling author of *Trading Online* and *Mind of a Trader*

“Guy Cohen cuts through the fog and helps all levels of investors grasp the most intricate concepts. He does so with great clarity and brevity despite covering such a broad set of topics. His is an invaluable guide for the interested beginner and the most advanced trader.”

—**Ned Bennett**, former CEO, optionsXpress, Inc.

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Your Guide to Profitable Trading

**Guy Cohen**

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*In memory of Geoffrey Glassborow, who cured me from what was  
supposed to be incurable.*

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# Acknowledgments

It's amazing how many parts of your mind go into writing a book like this. As a result, there are a number of people I must thank for both their direct and indirect influence.

First to my friend, the late Geoffrey Glassborow, to whom this book is dedicated and whose amazing skills enabled me to prove modern medicine wrong. In 1994, I was diagnosed with ulcerative colitis, an intensely debilitating condition of the lower intestine. The condition was serious enough to lead doctors in both the UK and the U.S. to recommend surgery as the only means of "relief." At this time, I was in constant pain and fear, such that even venturing out of my home became an achievement in itself. Through Geoffrey, I made a full recovery and also learned how to think.

I also need to thank my MBA finance options lecturer from City University (Cass) Business School, Professor Gordon Gemmill. It was his enthusiasm that got me hooked in the first place.

Alpesh Patel, thank you for introducing me to the *Financial Times* and Pearson. Finally, to Dominic and Lulu, who are more family than family.

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# About the Author



An innovator in financial trading, **Guy Cohen** is the creator and originator of the unique OVI Indicator, FlagTrader, and OptionEasy. He is the author of best-selling trading books *Options Made Easy*, *The Bible of Options Strategies*, and *Volatile Markets Made Easy* (FT Prentice Hall). Guy's new book, *The Insider Edge* (Wiley), was released in September 2012 and is focused on his OVI Indicator. His published work is

complemented by pioneering breakthroughs in the areas of trading and technical indicators, specifically the OVI.

Guy specializes in trading stock and options, with his hallmark being his user-friendly approach and liberal use of illustrations. With Guy, you will find proven techniques to succeed, complemented by industry-leading customer service.

An established and entertaining speaker, Guy has an MBA (finance) from City University (Cass) Business School, London.

Guy is also the author of *Your Gut Feeling*, which is a self-help autobiography that outlines his complete recovery from a severe case of ulcerative colitis.

For more information about Guy's trading products, go to <http://www.ovitradersclub.com>. If you have any comments regarding this book, please contact support@flag-trader.com.

# Executive Summary

Have you ever wanted to trade stocks and options but didn't know where to start? Now you can with this easy-to-read yet comprehensive and *practical* guide to options trading.

*Options Made Easy* is designed to steer you through the entire trading process, from how to select thrusting stocks right through to safely implementing specific stock and options strategies. *Options Made Easy* is engineered to *simplify and accelerate* the learning process to give you *increased confidence* for making *consistent profits*.

Using *plain English*, dynamic pictures, and *real-life examples* throughout, *Options Made Easy* demystifies the world of options and, whatever your current knowledge level, you'll be amazed at how quickly you'll learn the following:

- Options basics on a *realistic* level, right through to the most *advanced* strategies
- Facts and myths of technical and fundamental analysis
- How to filter for moving stocks
- How to select your optimum strategy
- Your trading plan for high-probability trades and consistent profits
- Secrets of trading psychology, how to increase your confidence, and how to eliminate the gambling mentality from your investment decisions

As you read this book, you'll discover that you're learning with an interactive guide that you can reference continually. By now, you'll appreciate that you have the potential to feel truly confident in making your trading decisions. Keep *Options Made Easy* with you as your essential companion for both stocks and options trading.

# Preface

This book can be used by any options trader, although it is fair to say that it is most specifically targeted toward novices and intermediates. Simplicity is the name of the game here, and I have made it my mission to enable anyone and everyone to learn and apply the benefits of options trading simply and easily. By giving you a grounding that is second to none, I look to provide you with the solid foundations required to give you the confidence to become a dynamic and successful trader. And I want it to be a fun and pleasurable experience too!

You'll find during the course of this book that much of the teaching is done through use of charts and diagrams. Even the nonvisual among you will appreciate the power of this approach. Options is frequently taught as a stodgy, theoretical subject, and I have often been bewildered by how people can "teach" this fascinating area of finance without the use of a single chart, diagram, or illustration. So much of my own knowledge is based on the understanding of simple diagrams.

You'll also discover that I ask you a lot of questions throughout this book. It's a technique I use when teaching. Learning is at its best when it is interactive. So get ready to have some fun while learning at a rate and speed that you couldn't have imagined possible before now. The writing style is as close to a relaxed speaking style as possible.

Another important aspect of this book is that the examples are designed to facilitate your learning experience. You'll discover that I try to make this as much of a nonmathematical obstacle course for you as possible. The numbers are reasonably straightforward because I want to keep your focus honed on the specific learning points; besides, there are software products that can help you with the math. I still use my own *OptionEasy* application just to be sure before I place any spread trade.

People often ask me how I got involved in options trading and training. Well, with my commercial real estate background, I've always had a passion for finance, and during an enforced sabbatical in 1995, I decided that once I had fully recovered, I would pursue all the things in life that terrified me! This included an MBA in finance at City University Business School, and once there,

it meant opting for the options specialist module. I was completely hooked, and that was the advent of the *OptionEasy* software package. It was initially for my own benefit.

That doesn't quite tell the whole story. Just weeks before taking the options exam, I could barely explain the difference between a call and a put! However, by the time I got into the exam room, I had brought my knowledge level from zero to getting over 80 percent correct on the exam, the fifth highest mark in a big class. As you'll see later, though, learning the academic material did not necessarily prepare me for the practicality of actual trading....

In the meantime, during those frantic weeks of revision, I developed eccentric techniques for learning about options. I drew pictures in my mind, invented silly phrases, and used "junko" logic to piece things together. The way I learned is now the way I teach. It's a little unusual, but it's fun, fast, and highly effective. No one forgets what a call and a put is when I teach them. And because we build everything on such solid foundations, you'll find that the *OptionEasy* way is the simplest, most effective, and fastest way of learning about options. Wherever a picture can be used to explain even the most complex of topics, we use it and combine it with the logic, too. We are constantly and simultaneously using different techniques to facilitate the learning process. *If you don't remember the logic, then you will remember the picture; if you don't remember the picture, then you will remember the logic.* Either way, you'll learn.

When I finally got around to making my first options trades, I did so with the typical trepidation of someone who had learned the academic material first. For my first-ever spread trade, I placed my order and then created a little spreadsheet to calculate the risk and reward of my trade. I was horrified to find that my maximum reward for this trade was precisely ZERO! I immediately cancelled the order (which hadn't yet been filled) and concluded that if I could make that kind of mistake then perhaps a few others could be doing just that same thing—without even knowing it! Hence, *OptionEasy* software application was born.

Chapter 1 is a step-by-step introduction into the world of options. It's important that you follow the examples of the *Risk Profile Charts* and understand these simple diagrams. The Risk Profile Chart is remarkably straightforward, but it is undoubtedly the cornerstone to your entire understanding of options. Even intermediates should pay attention to this part of the book. You'll understand far more than you thought was possible, so I challenge you to go through this section, even if it only takes you a few minutes.

Chapter 2 takes us into the marketplace. A common question I get asked is, "If I buy a stock option at \$2.50, why do I have to pay \$250.00 for it?" The

answer to this question is easy but needs to be understood. We also take you through some real-life examples to get you acclimatized to trading.

Chapter 3 is about fundamental analysis. This is what the “analysts” work on. In other words, they work on the health of the company, its assets, liabilities, turnover, cash flow, profits, and so on. In the long term, markets always revert to the fundamental health of individual companies; however, in the short term, it can be all about hype in either direction and human behavior *en masse*. How else can you explain PE ratios in excess of 100 times projected net earnings? People say, “Well, did you look at the growth rate of that company?” And they’re right, but few companies can sustain that kind of valuation for long simply because not many organizations can continue to grow at incredible levels for very long. Look at the stars of the 1990s, such as Microsoft and Dell. Eventually, they simply got too big and stopped being growth companies. At the end of the chapter is a list of *news events* and *fundamental analysis* headings that you need to be aware of if you’re a long-term trader.

Chapter 4 runs through some basic and well-known concepts of *technical analysis* and chart reading. This book is not intended to be an authority on charting, so it is left as brief as possible; however, you do need to be able to appreciate the rudiments of technical analysis so you can readily apply the appropriate strategy to the prevailing trading conditions. Entire books are dedicated to single areas of technical analysis, so, while this chapter is a useful summary, please undertake to do more work in this area. I stick to a couple of technical analysis techniques for my trading, and it suits both my personality and psychology to do it that way.

Chapters 5, 7, 8, and 9 take us through some simple options spread strategies and how to do them correctly and with minimal risk. It’s important to always follow the rules. By all means make up your own if you like, but always stick to the rules you adopt. And if the rules you invent or adopt are bad ones, then change them or stick to the ones you learn in this book. They’re designed to be easy to understand and to keep you out of serious trouble.

In Chapter 6, we discuss the “Greeks.” These are simply “sensitivities” to various factors affecting the pricing of options. From your point of view as traders, these sensitivities have consequences for your trading. We show you what the Greeks are, what their consequences are, and how to prepare for or ensure against them.

Chapter 10 is about trading psychology. You’ll find as you gain experience that many lessons in trading life generally are ones where it’s the intensity of the *experience* that is the greatest teacher. How many of us have let profits slide by because we fell in love with a stock and wouldn’t sell it before it reached

\$XXX.00? And for some reason it never quite got to \$XXX.00 and we still never sold—even when we'd been in massive profit! I have tried most of the strategies contained within the *OptionEasy* software application. I try not to tell people what to do, but I do try to give you an informed choice. You can have real choice only when you are armed with the tools to make that choice. It's my job to arm you with those tools, via teachings, applications, and experience.

Over the course of my trading career, I have experienced incredible highs and some pretty awful lows. Luckily the lows entailed me giving a portion of profits back to the market (as opposed to my being wiped out), and the highs preceded the lows. As a result of all this, I have developed practical concepts for how you can stick to a trading discipline whatever the rules may be. My job here is to take you through my experiences and make it as painful for you as it was for me. For example, my worst ever trading day was the day that I finally implemented the rule on stops. And that was it. I would never fail to implement stops again because the experience was so intense. Alas, I gave over 50 percent of my gains to learn this invaluable lesson, but at least my returns were still in the 100s of percent at that stage! I went on to make thousands of percent, but still, one of the pivotal moments was when I applied one of the golden rules of trading at such an intensely bad time.

Chapter 11 is where we bundle everything together and create coherent sample *trading plans*, so you're armed to get out there and put everything into practice. This book is not about theory; it's about being armed in a *practical* sense. I don't spend time on strategies that sound great but can only be used by the professionals in reality. I concentrate on what you can do in the real world, accepting both our opportunities and the minor limitations we have in being private investors and traders.

Finally, Chapter 12 gives you a taste of my proprietary indicator, the OVI. This unique tool shows us what options traders are doing. We use this information in conjunction with a chart pattern (namely flags and approaches of support and resistance) to determine the likelihood of a price breakout. This approach is remarkably powerful, yet also simple.

I want to make this an enjoyable experience for you as you find yourself learning dynamically and interactively as you go through the examples and illustrations. Trading stocks and options is fun, but it's also a serious business. Some of the most successful traders I know stick to just one or two strategies. With *OptionEasy*, you have the choice of whatever strategy suits your trading style and individual psychology.

Enjoy the reading, enjoy the learning, and enjoy the fact that this is only a stepping stone for you on your journey to gain as much knowledge as you

possibly can in this arena. The issue is not that there's not enough education in the trading world. There's actually too much. But where's the wheat and where's the chaff? The challenge is for you to find what suits you and to distinguish between proper techniques and fly-by-nights. This isn't supposed to be an easy game. You can do it, but don't be fooled into thinking that it's going to take one book or one workshop. This has to become a hobby for you, one that you'll enjoy and one that's a continuing challenge. The truest thing I know about trading is that the learning never stops. It's incessant and compelling. It's best to avoid people promising you ludicrous returns per month and "guaranteed" results with no effort on your part. If it looks too good to be true, *it usually is!* Having said that, you can make trading and investing an unusually predictable and successful vocation by your own efforts, enthusiasm, and discipline.

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## chapter 1

# Introduction to Options

Why is it that options are so misconceived as a minefield of danger and risk? How can we make sense of this and look at options as tools to limit our risks, maximize our returns, and SEE WHAT WE'RE DOING at the same time? This is the essence of *OptionEasy* and this book—how to make seemingly complex things simple.

Options have become remarkably popular, especially in the U.S. Far from being confined solely to the institutions and professional money managers, options trading is now mainstream for “retail” traders from all walks of life. The concept of options is still, however, treated with fear and trepidation in some quarters. When I first embarked upon serious trading, a friend warned me about what I was getting into, but trading can be as safe as you want it to be.

The simple fact is you need to have a trading plan that works. It needs to keep your risk low and your potential for reward high. You need your plan to have structure and simplicity so you can follow it every time. Over the years, my trading plan has become progressively simpler.

To make it as a trader, it helps to develop the following traits—and they can all be developed.



## Criteria for Successful Investing

- Patience
- Perseverance
- Knowledge

- Honesty
- Pre-planning
- Discipline

## Patience

Making a lot of money in the markets is one of the most exciting experiences you can have in your professional life. I've done it in two ways, making thousands of percentage gains each time. The first was probably more luck than judgment. The latter was by using skills that took time to develop. Take time to decide on your strategy (I outline mine in Chapter 11, "Putting It All Together—A Call to Action," and Chapter 12, "Trading with the OVI") and nurture your skills. There comes a time when you feel at one with the markets and trade only when the most obvious of opportunities stares you in the face. When you are able to turn down substandard opportunities with a shrug of the shoulder, you'll know you've arrived.

If you're new to all of this, take your time. Think about it this way: Would you consider yourself able to do brain surgery after just one tutorial? Well, the same applies to trading, and even more so for options trading (although the same principles apply). Give yourself time to learn. By reading this book, you are doing just that, giving yourself a learning opportunity. If you're already familiar with stocks, this is the next step. And just as you had to get comfortable with trading stocks at first, you also now have to get comfortable with trading options.

Furthermore, when you are comfortable enough to trade, you need to have patience to do the trading itself. We've all had the experience of jumping into an investment too early even when we weren't quite convinced it was the right thing to do. Be patient, take a deep breath if you have to, and stick to your trading plan every time.

Finally, patience also involves selecting a trading strategy where time works in your favor and where your downside is covered. There are plenty of strategies for you to choose from in this book, but you can always elect to keep things simple. Regardless of which one you choose, always wait for the right opportunity to present itself. I stick to a couple of chart patterns to trade, and if they're not showing up, I don't need to trade. People who specialize make the most money. So, specialize in terms of what you trade.

Be patient in your attitude to acquiring wealth. The more patient you are in this way, the better off you will be. This doesn't mean sitting back and doing

nothing—that's apathy, not patience. Give yourself time to learn, gain experience, and then start to apply what you learn consistently so that you begin a process of making money and building wealth.

Consistent with the art of patience is embracing the concept of *compounding*. If you can make just 1 percent per week, this would mean more than 67 percent in just one year, a record of which any fund manager would be envious. The following table illustrates the power of compounding if you start with just \$10,000 in your account:

Weekly return %	Monthly return %	1 year	2 years	3 years	3-year return %
1%	4%	\$16,777	\$28,146	\$47,220	472%
2%	8.24%	\$28,003	\$78,418	\$219,597	2,196%
3%	12.55%	\$46,509	\$216,307	\$1,006,021	10,060%
4%	16.99%	\$76,866	\$590,836	\$4,541,517	45,415%
5%	21.55%	\$126,428	\$1,598,406	\$20,208,201	202,083%

This table is here to remind you about the need to be patient. Allow your returns to accumulate, and let compounding do its work for you.

## Perseverance

Keep going. If you believe in something, you have to keep at it until you reach your goal. And once you've reached your goal, set another target.

Having embarked on the goal of becoming a successful trader (whether full-time or part-time), you must stick to it in order to get there. Anyone can do it. I've seen it time and time again with my students, where sometimes the most unlikely characters become phenomenal traders—even those who don't think they can. To be practical, give yourself attainable targets to reach in a realistic time frame. So by next week, you'll be fully familiar with the four main options risk profiles. You may be able to do it tonight. Keep on setting the attainable targets (do make them a slight challenge, though), and in this way you'll be able to keep up the momentum of learning and gaining experience. You'll also start to build up your confidence as you go along, reassuring yourself of your ability to understand anything you put your mind to. This book will help you in building your confidence because it's a practical book and it's easy to follow and understand. So keep going, and enjoy the process of accumulating.

## Knowledge

Having established the need for patience for both acquiring the knowledge and for trading itself, let's remember that knowledge is attainable now with such ease and speed that it is eminently achievable in a reasonably quick time. Tools exist now to simulate the trading experience, and there are myriad publications and web sites designed to help you build your knowledge database.

The best knowledge comes from experience. It's all very well to say, "Trade mechanically," but very few people do. Emotions are part of our beings, so rather than ignore them, it's more constructive to work around them. That's what my trading plan is all about—staying safe, but still being able to play for the big wins. Mindset is also key, and that's covered in Chapter 10, "Trading and Investing Psychology."

Remember that learning is *experience-based*. We can all remember the most extreme of our teachers at school, right? You can recall the funniest, the scariest, the smelliest, the prettiest, and the ugliest, but I'll bet you have a problem remembering anything about the teachers who were somewhere in the middle—those who barely made an experiential impact on you in years of being in the same classroom.

The same applies to trading. A lot of the learning involved in trading is experience-based. In fact, the most pertinent form of learning about trading is experience-based. It's through the extreme experiences that you find more out about yourself in good times and bad. Most brilliant traders have had terrible experiences but, crucially, have stepped back up to the plate and *applied* what they learned. Just like me. I made a lot of money very fast, thought I was invincible, and then promptly gave some of it back again. Trust me, I didn't feel too good about that, but I did learn. And more importantly, I applied the lessons.

So, allow yourself to get your experience, which is what this book and my workshops are all about. Ultimately I'm sure you'll end up coming back to the simplicity that's contained in my trading plan.

## Honesty

You have to be honest with yourself if you're to develop into a decent trader or investor. Ultimately, your results determine how good you are. Your decisions are your responsibility, not anyone else's. Blaming other people never helps. If you pull the trigger, then you're the one in control. We cover more of this in Chapter 10.

## Pre-Planning

You *must* pre-plan each and every trade. By this, you must know your

- Maximum *risk*
- Maximum *reward*
- Breakeven points

You also must plan

- Your entry point
- Your exit point whether it's to...
  - Take profit or
  - Stop losses

With options trading, I tend to base any stop loss on the basis of the underlying stock. The underlying stock is invariably more liquid than its options, so it makes it easier to make your loss-cutting decision based on the price of the stock, future, or whatever the underlying asset is.

The first piece of pre-planning is the choice of the underlying stock itself due to the chart pattern. Then you create the trading plan, which requires...

## Discipline—The Key to Success

When you have had the patience to acquire the knowledge and apply the principles previously discussed, it's imperative not to waste it all. You must be disciplined and apply that discipline rigorously each and every time.

This means that

- You do your pre-planning every time.
- You use your (and others') experience.
- You do not deviate from your stated sensible plan.

In this way, you take the first steps to become more methodical. Discipline is vital with trading. Without money management, even the most sophisticated of trading systems cannot work.

By sticking rigorously to sensible money-management principles, you ensure that your losses are minimized and your profits are allowed to run.

You'll also ensure that you will avoid suicidal risk profiles. I'm often horrified at so-called experts teaching option strategies that have terrible risk profile curves. So let's have a look at a risk profile and why it is so important to your success as an options trader.

## Risk Profile Charts

Do you know what buying an asset such as a stock or a future looks like? To find out, we need to learn how to draw a *risk profile chart*. This is the cornerstone on which we build far more complex strategies, so it's important to understand this right now.

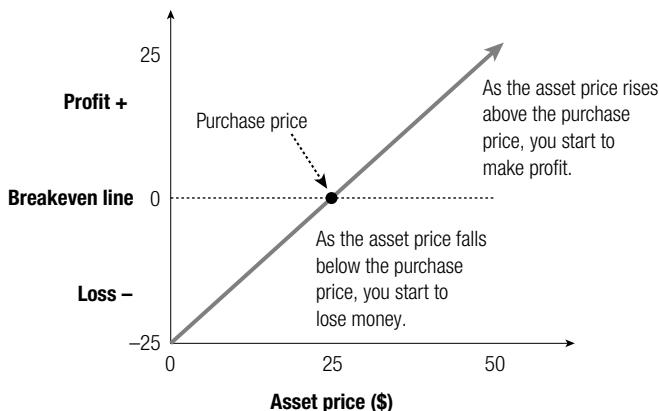
### Example 1.1

Consider a stock XYZ Inc. You buy the stock for \$25.00.

1. The X-axis is the stock price, with the price rising as the line moves right.
2. The Y-axis is your profit for the trade.
3. The 45° diagonal line is your risk profile for the trade. As the price of the stock (or underlying asset) rises, so does your profit in this example. So when the asset price rises to \$50, you make \$25 of profit:

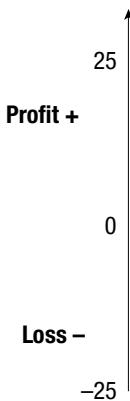
Current price	-	Buy price	=	Profit (loss)
\$50	-	\$25	=	+\$25
\$10	-	\$25	=	(\$15)

Chart 1.1 ● Buying an asset risk profile.

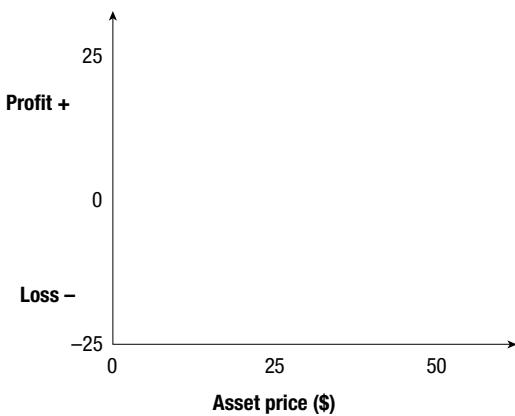


## Steps to Creating a Risk Profile Chart

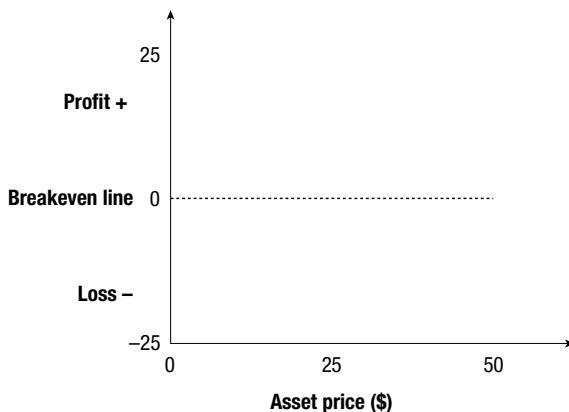
### Step 1 ● Y-axis for profit/loss position



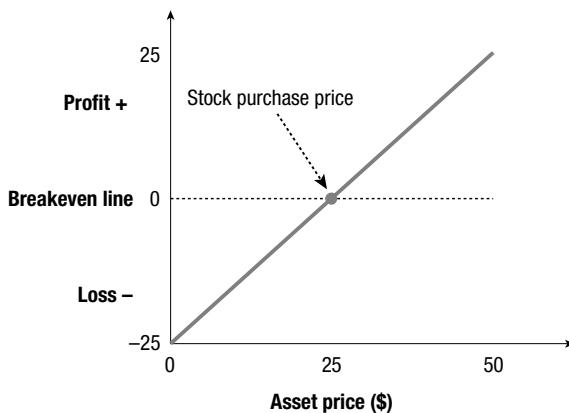
### Step 2 ● X-axis for underlying asset price range



### Step 3 ● Breakeven line

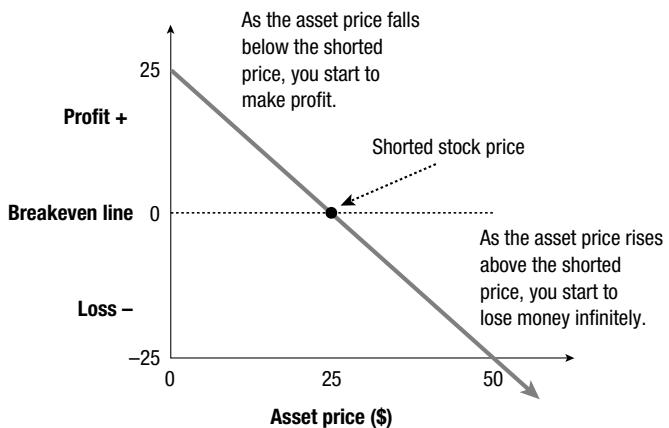


### Step 4 ● Risk profile line



Now that you know what buying an asset looks like, you can move straight onto what *shorting* an asset looks like. Shorting simply means selling something that you don't already own.

Remember that when you short, you can lose an unlimited amount as the asset price rises, and your maximum profit is the shorted price. To make maximum profit from a short stock position, the asset would have to fall to zero.

**Chart 1.2 ● Shorting an asset risk profile.**

So now that you know how to draw the most basic risk charts, let's talk about options.

## The Definition of an Option

An *option* is defined as the “right, not the obligation, to buy (or sell) an asset at a fixed price before a predetermined date.”

Let's have a look at that definition and see if we can pick out the component parts:

- the right, not the obligation
- to buy or sell an asset
- at a fixed price
- before a predetermined date

These component parts have important consequences on the valuation of an option. Remember that the option itself has a value, which we look at after we finish with the definitions.

Before we go ahead and look at the ways in which options are valued, let's consider the words, “*right, not the obligation*.”

## The Right, Not the Obligation

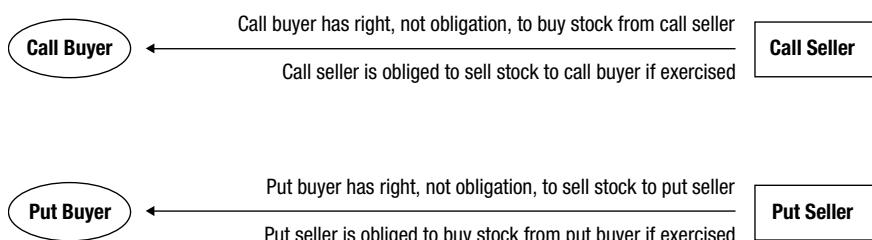
### Buying Gives You the Right

- Buying an option (call or put) conveys the *right*, not the obligation, to buy (call) or sell (put) an underlying instrument (for example, a share).
- When you buy an option, you are NOT obligated to buy or sell the underlying instrument—you simply have the right to do so at the fixed (exercise or strike) price.
- Your risk when you buy an option is simply the price you paid for it.

### Selling (Naked) Imposes the Obligation

- Selling an option (call or put) *obliges* you to buy from (with sold puts) or deliver (with sold calls) to the option buyer if he or she exercises the option.
- Selling options naked (for example, when you have not bought a position in the underlying instrument or an option to hedge against it) gives you an unlimited risk profile.

Combined with the fact that you are *obliged* to do something, this is generally NOT a preferable position in which to put yourself. Only advanced traders should contemplate selling naked options, and even then they should have a protective strategy in mind to cover the downside (see Figure 1.1).



**Figure 1.1**

Now let's consider the words, “*to buy or sell an asset*.”

## Types of Options—Calls and Puts

A *call* is an option to BUY.

A *put* is an option to SELL.

Therefore,

- A call option is the right, not the obligation, to BUY an asset at a fixed price before a predetermined date.
- A put option is the right, not the obligation, to SELL an asset at a fixed price before a predetermined date.

### Types of Calls and Puts

Options can be either American-style or European-style:

- *American*-style options allow the option buyer to exercise the option at any time before the expiration date.
- *European*-style options do *not* allow the option buyer to exercise the option before the expiration date.

Most traded options are American-style, and all U.S. equity options are American-style.

American-style options are slightly more valuable than European-style options because of their added flexibility. It is logical that being able to exercise before expiration must be more valuable than not being able to.

As a rule, stock options are generally American-style. Futures options are generally European-style.

### Memory Tip

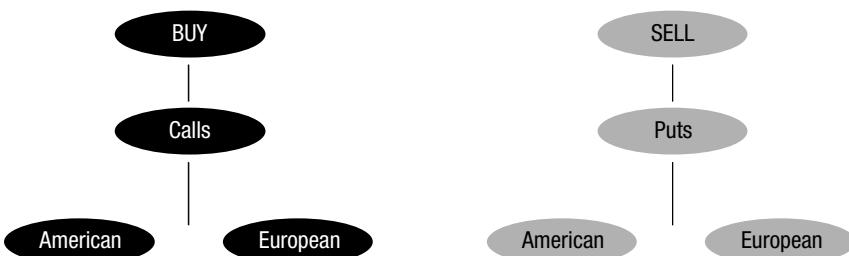
**Call Is to Buy**—think of calling UP a friend on the phone.

*The reason it is named a call is because when you buy a call, you can "call" the underlying asset away from the person who sold the option to you.*

**Put Is to Sell**—think of putting your pen DOWN on the table and walking away.

*The reason it is named a put is because when you buy a put, you can "put" the underlying asset to the person who sold the option to you.*

### Option to ...



**Diagram 1.1 ● American- and European-style options.**

Now we need to look at the words, “*at a fixed price*.”

## Exercise (or Strike) Price

The *exercise (strike) price* is the fixed price at which the option can be exercised.

So if you buy a call option that has a strike price of 50, then you have bought yourself the option to buy the asset at a price of \$50.

However, in the real world, you want to exercise your right to buy that asset only at \$50 if the underlying asset is actually worth MORE than \$50 in the market. Otherwise, there would be no point. It would mean buying the asset for \$50 when it's only actually worth, say, \$40 in the marketplace. No one would do that because they could buy it for \$40 in the market.

This leads us to the words, “*before a predetermined date.*”

## Expiration Date

This is the date before which the option can be exercised.

At expiration, the call option’s own value is worth only the price of the asset less the strike price, and at expiration, the put option’s own value is only worth the strike price less the price of the asset. For U.S. equity monthly options, the expiration dates fall on the Saturday after the third Friday of every month. Weekly options have gained in popularity, but they are still not quite as actively traded as the traditional monthly options.

This leads us onto the topics of *intrinsic value* and *time value*.

## The Valuation of Options

As we said before, options themselves have a value. Remember that options are totally separate entities to the underlying assets from which they are derived (hence, the term derivative). But in themselves they do have a value, which can be split into two parts: **intrinsic value** and **time value**.

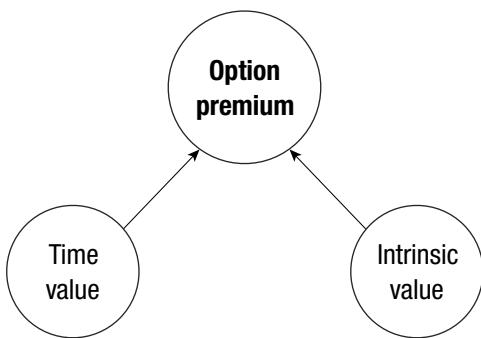
In general:

- *Intrinsic value* is that part of the option’s value that is *in-the-money (ITM)*.
- *Time value* is the remainder of the option’s value. *Out-of-the-money (OTM)* options will have no intrinsic value, and their price will solely be based on time value. Time value is another way of saying hope value. This hope is based on the amount of time left until expiration and the price of the underlying asset.
- A call is *ITM* when the underlying asset price is greater than the strike price.

- A call is *OTM* when the underlying asset price is less than the strike price.
- A call is *at-the-money (ATM)* when the underlying asset price is the same as the strike price.

Put options work the opposite way:

- A put is *ITM* when the underlying asset price is less than the strike price.
- A put is *OTM* when the underlying asset price is greater than the strike price.
- A put is *ATM* when the underlying asset price is the same as the strike price.



**Diagram 1.2** ● Intrinsic value and time value.

## Why Trade Options?

The main reason for trading options is that for a smaller amount of money you can control a large amount of stock, particularly with call options. Call options are always cheaper than the underlying asset and put options usually are. Options are generally more volatile than their underlying instruments; therefore, investors get “more bang for their buck” or more action. Clearly this can lead to danger, but as you’ll see, it also can lead to more safety and security. You’ll also see that it can mean much greater flexibility in your trading and even give you the ability to make profit when you don’t know the direction in which the stock will move.

Options are generally more volatile than their underlying instruments; therefore, investors get “more bang for their buck” or more action.

Those investors with portfolios can set up protective measures in the event of a market downturn. It is also quite possible to set up a position whereby you can only make profit. Perhaps not a hugely exciting profit in triple digits, but a

certain profit nevertheless. Options make this type of scenario possible. We cover that particular strategy in Chapter 5, “Two Popular Strategies and How to Improve Them.”

In short, options give the investor added flexibility, potentially much greater gains for a given movement in the stock price, and protection against risk. On the flip side, used in the wrong way, options can lead people to serious losses. You will be learning safe strategies only and the simple rules governing those types of trade.

## Intrinsic and Time Value for Calls

### Example 1.2 Where there is intrinsic value

<b>Call intrinsic value</b>		<b>Call time value</b>	
<b>Stock price</b>	\$56.00	<b>Stock price</b>	\$56.00
<b>Call premium</b>	7.33	<b>Call premium</b>	7.33
<b>Strike price</b>	50	<b>Strike price</b>	50
<b>Time to expiration</b>	2 months	<b>Time to expiration</b>	2 months
<b>Intrinsic value</b>	$56 - 50 = \mathbf{6.00}$	<b>Time value</b>	$7.33 - 6.00 = \mathbf{1.33}$

Notice how: (Intrinsic value + time value) = the option price

Formulas for intrinsic and time values for calls:

- Call intrinsic value = Stock price – strike price
- Call time value = Call premium – call intrinsic value

The minimum intrinsic value is zero.

### Example 1.3 Where there is no intrinsic value

<b>Call intrinsic value</b>		<b>Call time value</b>	
<b>Stock price</b>	\$48.00	<b>Stock price</b>	\$48.00
<b>Call premium</b>	0.75	<b>Call premium</b>	0.75
<b>Strike price</b>	50	<b>Strike price</b>	50
<b>Time to expiration</b>	2 months	<b>Time to expiration</b>	2 months
<b>Intrinsic value</b>	$48 - 50 = \mathbf{0.00}$	<b>Time value</b>	$0.75 - 0.00 = \mathbf{0.75}$

## Intrinsic and Time Value for Puts

### Example 1.4 Where there is intrinsic value

Put intrinsic value		Put time value	
Stock price	\$77.00	Stock price	\$77.00
Put premium	5.58	Put premium	5.58
Strike price	80	Strike price	80
Time to expiration	4 months	Time to expiration	4 months
Intrinsic value	$80 - 77.00 = 3.00$	Time value	$5.58 - 3.00 = 2.58$

Notice how: (Intrinsic value + time value) = the option price

Formulas for intrinsic and time values for puts:

- Put intrinsic value = strike price – stock price
- Put time value = put premium (or value) – put intrinsic value

The minimum intrinsic value is zero.

### Example 1.5 Where there is no intrinsic value

Put intrinsic value		Put time value	
Stock price	\$85.00	Stock price	\$85.00
Put premium	1.67	Put premium	1.67
Strike price	80	Strike price	80
Time to expiration	4 months	Time to expiration	4 months
Intrinsic value	$80 - 85.00 = 0.00$	Time value	$1.67 - 0.00 = 1.67$

## The Seven Factors that Influence an Option's Premium

There are seven factors that affect the pricing of an option. Again, we look to the definition of an option to give us the clues. An option is defined as the

- right, not the obligation
- to buy or sell
- an asset
- at a fixed price
- before a predetermined date

Now let's take the seven factors, which are as follows:

Quote from definition	Comment
<b>“buy or sell”</b>	The type of option (call or put) affects the option premium.
<b>“underlying asset”</b>	The <i>underlying asset</i> and its <i>own price</i> affect the option premium.
<b>“at a fixed price”</b>	The strike price affects the option premium.
<b>“before a predetermined date”</b>	The expiration date and time value affect the option premium.

There are three other major influences on option pricing, which we will discuss later in more detail.

Factor	Comment
<b>Volatility</b>	Worthy of a book in itself. Volatility is a crucial and major influence in the pricing of options. Understanding volatility gives the options trader the ability to select specific trades most profitably. The most advanced traders always use volatility to their advantage.
<b>Risk-free rate of interest</b>	This is the short-term rate of government money. It is known as risk-free owing to the perceived covenant strength of (developed world economy) governments.
<b>Dividends payable</b>	This applies to any asset that offers an income “reward” for owners of the underlying asset. For stock options, this is the dividend payable.

## Quick Summary

Option prices are affected by the type of option (call or put) as follows:

- The price of the underlying asset
- The exercise price (or strike price) of the option
- The expiration date

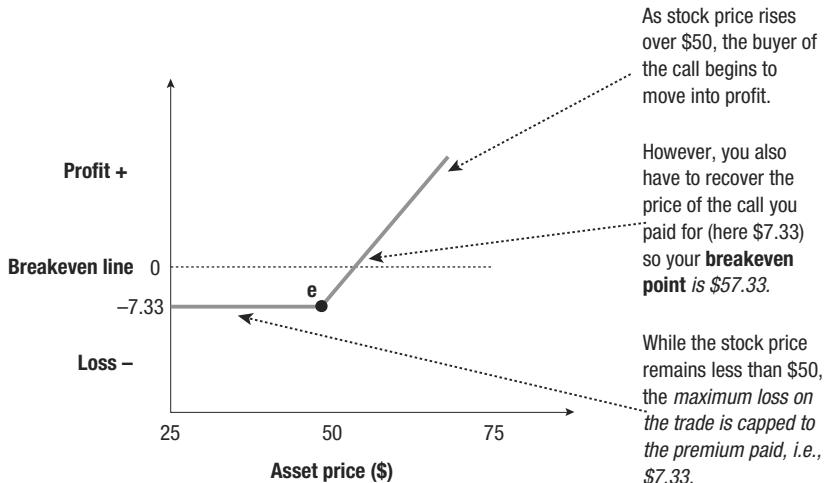
- Volatility—implied and historical (see Chapter 6, “An Introduction to the Greeks”)
- Risk-free interest rate
- Dividends and stock splits

## Risk Profile Charts for Call Options

Now that you know what makes up the valuation of an option, let's look at the risk profile of a call option.

We already know that a call option is the right to *buy* an asset. Logically, this suggests that the call option risk profile direction is similar to that of buying the asset itself. So let's have a look at an example.

**Chart 1.3 ● Long call option risk profile.**



Look back to Example 1.2 where you buy a call option:

<b>Stock price</b>	\$56.00
<b>Call premium</b>	7.33
<b>Strike price</b>	50
<b>Time to expiration</b>	2 months

Remember that...

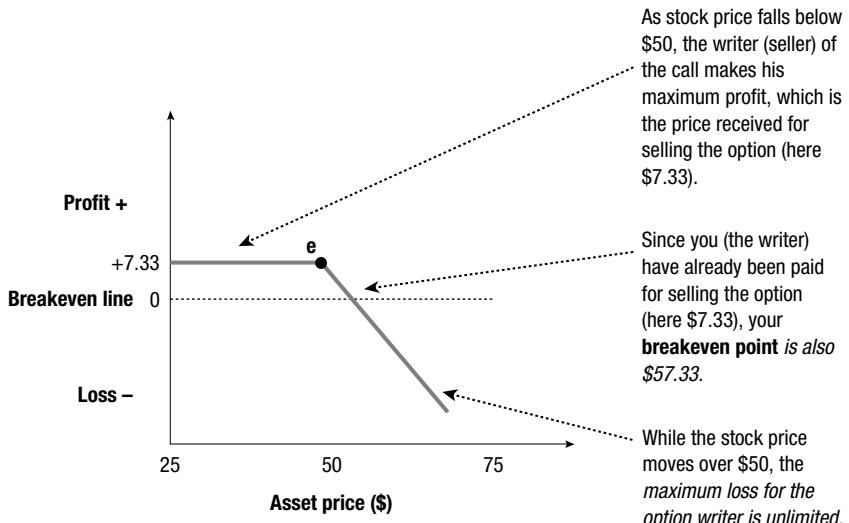
## Buying Gives You the Right

- Buying a call option gives you the right, not the obligation, to buy an underlying instrument (that is, a share).
- When you buy a call option, you are not obligated to buy the underlying instrument—you simply have the right to do so at the fixed (exercise or strike) price.
- Your risk, when you buy an option, is simply the price you paid for it.
- Your reward is potentially unlimited.

For every call that you buy, there is someone else on the other side of the trade. The seller of an option is called an *option writer*. Logic and common sense tell us that the option seller's risk profile must be different from that of the option buyer.

So, staying with calls, let's see the option writer's risk profile perspective.

**Chart 1.4 ● Short call option risk profile.**



Still taking Example 1.2 of the following call option:

<b>Stock price</b>	\$56.00
<b>Call premium</b>	7.33
<b>Strike price</b>	50
<b>Time to expiration</b>	2 months

Remember that we already discussed the implications of selling an option. Here's a reminder:

## Selling (Naked) Imposes the Obligation

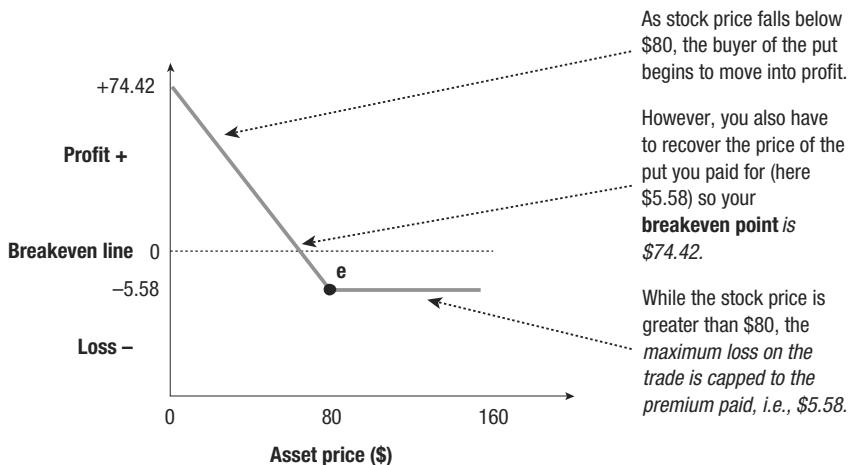
- Selling a call option obliges you to deliver the underlying asset to the option buyer.
- Selling options naked (for example, when you have not bought a position in the underlying instrument or an option to hedge against it) gives you an unlimited risk profile. The continuous downward line is generally not a good sign because it means unlimited potential risk.
- Combined with the fact that you are obliged to do something, this is generally not a preferable position in which to put yourself.

## Risk Profile Charts for Put Options

Now that you know what long and short calls look like, let's look at the risk profile of a put option.

We already know that a put option is the right to *sell* an asset. Logically, this suggests that the put option risk profile direction will be the opposite to that of calls or buying the asset itself. So let's have a look at an example:

**Chart 1.5 ● Long put option risk profile.**



Look back to Example 1.4 where you buy a put option as follows:

<b>Stock price</b>	\$77.00
<b>Put premium</b>	5.58
<b>Strike price</b>	80
<b>Time to expiration</b>	4 months

Remember that...

## Buying Gives You the Right

- *Buying a put option gives you the right, not the obligation, to sell an underlying instrument (that is, a share).*
- *When you buy a put option, you are not obligated to sell the underlying instrument—you simply have the right to do so at the fixed (exercise or strike) price.*
- *Your risk, when you buy an option, is simply the price you paid for it.*
- *Your reward is potentially unlimited. With long puts, your reward is unlimited to the downside, for example, the strike price less the price you paid for the put itself. In this example, that is:  $80 - 5.58 = 74.42$ .*

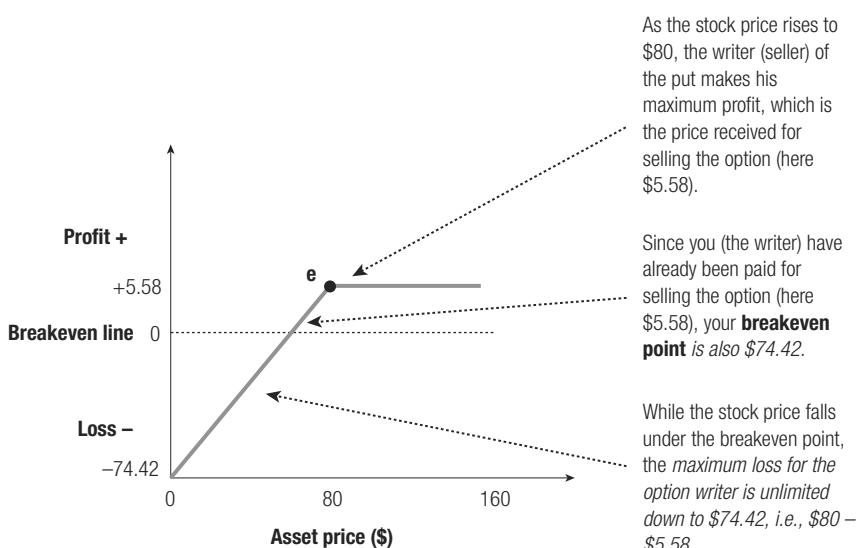
For every put you buy, there is someone else on the other side of the trade. The seller of a put option has a different risk profile to that of the put option buyer.

### Chart 1.6 ● Short put option risk profile.

Still taking Example 1.4 of the following put option:

<b>Stock price</b>	\$77.00
<b>Put premium</b>	5.58
<b>Strike price</b>	80
<b>Time to expiration</b>	4 months

Remember that we already discussed the implications of selling an option. Here's another reminder for puts.



## Selling (Naked) Imposes the Obligation

- Selling a put option obliges you to buy the underlying asset from the option buyer. Remember, when you sell a put, you have sold the right to sell to the person who bought that put.
- Selling options naked (for example, when you have not bought a position in the underlying instrument or an option to hedge against it) gives you an unlimited risk profile. The continuous downward line is generally not a good sign because it means unlimited potential risk.
- Combined with the fact that you are obliged to do something, this is generally not a preferable position in which to put yourself.

If any of that was slightly confusing to you, here are some simple ways to remember:

### Memory Tips for Long and Short Calls and Puts

#### Step 1 ● Remember your basic math at school:

$$\begin{array}{rcl}
 + + & = & + \\
 + - & = & - \\
 - + & = & - \\
 -- & = & +
 \end{array}$$

**Step 2 ● Think buying something as a + and selling something as a -; therefore:**

Buying a call would be a ++

Selling a call would be a - +

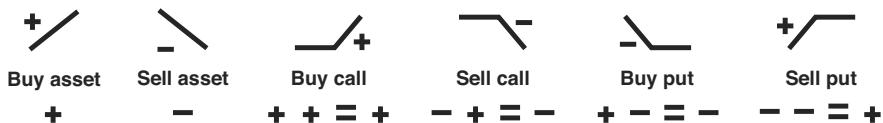
Buying a put would be a + -

Selling a put would be a --

**Step 3 ● Remember your risk profiles:**

Where you end up with a + risk profile, the diagonal line is upward from left to right.

Where you end up with a - risk profile, the diagonal line is downward from left to right.



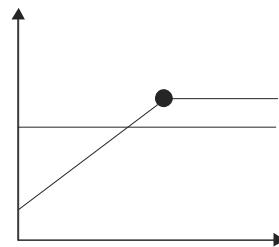
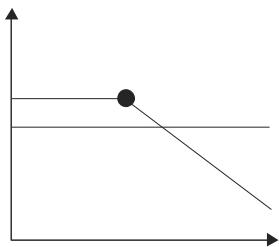
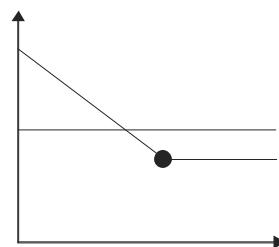
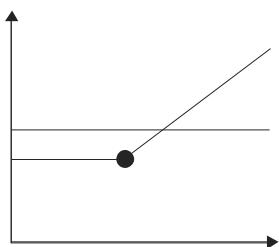
## Basic Risk Profiles Summary

These are the four charts you need to remember. If you just remember the long call option risk profile, you should be able to construct the other three basic option positions. When you are comfortable with these and the logic behind them, you'll be ready to look at spreads and combinations with ease.

## The Four Basic Risk Profiles for Options

### The four basic risk profiles

Here are the four basic risk profiles. Notice how each one is a mirror of another. See if you can deduce which one is which, and I'll explain them all on the next page.

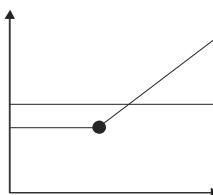


### The four basic risk profiles explained

See how each strategy is the opposite of each of the others, both from a logical and a visual point of view. Once you're familiar with these four pictures, you can combine them to create new strategies.

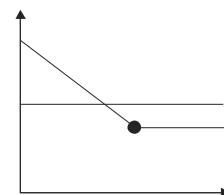
#### Buying a call

- Belief that stock will rise (bullish outlook)
- Risk limited to premium paid
- Unlimited maximum reward



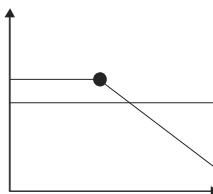
#### Buying a put

- Belief that stock will fall (bearish outlook)
- Risk limited to premium paid
- Unlimited maximum reward up to the strike price less the premium paid



#### Writing a call

- Belief that stock will fall (bearish outlook)
- Maximum reward limited to premium received
- Risk potentially unlimited (as stock price rises)
- Can be combined with another position to limit the risk



#### Writing a put

- Belief that stock will rise (bullish outlook)
- Maximum risk is the strike price less the premium received. We can think of this as either being "unlimited" until the stock reaches zero, or "limited" to the [strike price – premium] formula.
- Maximum reward limited to the premium received
- Can be combined with another position to limit the risk

## Notation Standard for the Examples

As we go through several trade examples, I use the following notation standard when referring to the options.

Expiration month | strike price | call or put

December | 40 | call

July | 30 | put

- December 40 call—A call with a strike price of \$40, which expires in December
- July 30 put—A put with a strike price of \$30, which expires in July

Sometimes I include the word *strike* as follows:

- December 40 strike call—A call with a strike price of \$40, which expires in December
- July 30 strike put—A put with a strike price of \$30, which expires in July

Strike prices and option premiums are notated without the dollar symbol (\$) sign.

Stock prices and real dollar amounts are generally notated with the \$ sign unless they are part of a formula.

Breakeven figures and nominal risk or reward figures are notated without the \$ sign.

Where appropriate, strategy names and jargon are depicted in lowercase. This is the contemporary way.

## Chapter 1 Major Learning Points

Remember the six major prerequisites:

- Patience
- Perseverance
- Knowledge
- Honesty
- Pre-planning
- Discipline

Start to build a plan. The plan should encompass the following:

1. What stocks or other assets should I be considering for successful trading?  
Do what feels comfortable. I tend to stick with stocks, CFDs, and stock options.
2. What direction do I feel comfortable trading in (up or down)? Could I consider trading put options if a stock or the market falls?
3. Have I checked the news items for the particular asset I am trading? Are quarterly or other results out soon? Is there a major announcement from

the government coming out soon? Could these announcements affect my trade? Can I use them to enhance my position, or shall I wait until the announcements are made?

4. Do I want to check whether this company actually makes money and is growing its earnings?
5. Have I checked the graphs and done any technical analysis? Am I missing something obvious like a basic double top chart pattern?
6. What strategy and risk profile do I feel comfortable with trading?
7. For each trade, what is my entry point and exit point?
8. Do I know my risk, reward, and breakeven levels for my options trades?
9. What price am I looking for to execute my trade?
10. Where do I take my profits, and where is my STOP LOSS?

We'll review this list as we go along every chapter. So far, the **main questions** you should start to consider are **those in bold**. By the end of the book, you'll be able to answer all of them and begin to build your own plan.

You have now learned what the essential risk profiles look like and what they mean to you in terms of maximum risk and reward.

Profile	Description	Risk	Reward	Breakeven
	<b>Buy stock</b>	Purchase price	Unlimited	Purchase price
	<b>Sell stock</b>	Unlimited	Short sale price	Short sale price
	<b>Buy call</b>	Call premium	Unlimited	Strike price plus call premium paid
	<b>Sell call</b>	Unlimited	Limited to the call premium received	Strike price plus call premium paid
	<b>Buy put</b>	Put premium	Strike Price less put premium paid	Strike price less put premium paid
	<b>Sell put</b>	Strike price less put premium received	Limited to the put premium received	Strike price less put premium paid

We can now progress to Chapter 2, "Into the Marketplace," where we start to explore the reality of trading options with real numbers.



## chapter 2

# Into the Marketplace



## How to Read Option Prices

The main components of an on-screen options price are as follows:

- The underlying instrument
- The expiration date of the option
- The option symbol
- The exercise (strike) price of the option
- The bid/ask of the option price
- The volume of the particular option on that day
- The open interest of the specific option

**Example 2.1 Typical layout for a call option chain**

Apple Inc. (AAPL) - NasdaqGS							
<b>614.32 ↑ 8.06 (1.33%) 4:00PM EDT   After Hours: 614.79 ↑ 0.47 (0.08%) 5:48PM EDT</b>							
<b>Underlying asset</b>							
<b>Options</b>							
View By Expiration: Jul 12   Aug 12   Sep 12   Oct 12   Jan 13   Apr 13   Jan 14							
<b>Call Options</b> Expire at close Friday, January 18, 2013							
Strike	Symbol	Last	Chg	Bid	Ask	Vol	Open Int
580.00	AAPL130119C00580000	71.60	↑ 6.25	71.40	71.85	70	6,373
585.00	AAPL130119C00585000	69.00	↑ 6.00	68.45	68.95	4	2,372
590.00	AAPL130119C00590000	66.05	↑ 6.05	65.65	66.15	61	7,042
595.00	AAPL130119C00595000	63.10	↑ 6.50	62.80	63.25	63	3,376
600.00	AAPL130119C00600000	60.14	↑ 4.94	60.10	60.50	1,346	72,941
605.00	AAPL130119C00605000	57.90	↑ 5.40	57.45	57.90	1,230	16,353
610.00	AAPL130119C00610000	54.93	↑ 4.58	54.90	55.30	358	13,073
615.00	AAPL130119C00615000	52.45	↑ 3.75	52.40	52.80	1,111	4,120
620.00	AAPL130119C00620000	50.10	↑ 4.70	49.95	50.40	197	10,052
625.00	AAPL130119C00625000	47.80	↑ 4.77	47.65	48.05	98	5,731
630.00	AAPL130119C00630000	45.50	↑ 4.35	45.35	45.75	283	4,652
635.00	AAPL130119C00635000	43.40	↑ 5.15	43.15	43.55	81	5,541
640.00	AAPL130119C00640000	41.06	↑ 4.06	41.05	41.40	69	6,663
645.00	AAPL130119C00645000	39.05	↑ 3.98	39.05	39.40	57	6,530
650.00	AAPL130119C00650000	37.35	↑ 3.95	37.15	37.50	1,284	52,024

Here is part of a call option chain for Apple Inc (AAPL). There are about one thousand individual options for Apple, spanning a number of strike prices and different expiration dates. Each option has a strike price and an expiration date. For each option, there is a different bid/ask price quote, a different volume, and a different open interest.

Definitions from the option chain page are as follows:

<b>Last</b>	The last price transacted (here the quote was delayed by 15 minutes).
<b>Change</b>	Change in option price since yesterday's close.
<b>Bid</b>	The highest price at which the floor trader is willing to bid (to buy). This is the price at which you will sell if you place a "market order." The floor trader makes his profit from the spread.
<b>Ask</b>	The lowest price at which the floor trader is willing to ask (to sell). This is the price at which you will buy if you place a "market order."
<b>Volume</b>	The amount of contracts traded during the day so far.
<b>Open interest</b>	The number of contracts currently open in the market.

Remember that the stock itself has figures for all of the above except for the open interest, which is specific to options.

### Example 2.2 Typical layout for a put option chain

The same headings as previously listed apply here.

Apple Inc. (AAPL) - NasdaqGS							
<b>614.32</b> ↑ 8.06(1.33%) 4:00PM EDT   After Hours: <b>614.79</b> ↑ 0.47 (0.08%) 5:48PM EDT							
Options							
View By Expiration							<b>Expiration date</b>
Strike	Symbol	Last	Chg	Bid	Ask	Vol	Open Int
580.00	AAPL130119P00580000	40.15	↓ 2.50	39.80	39.95	66	3,881
585.00	AAPL130119P00585000	41.75	↓ 3.35	41.65	42.05	94	2,859
590.00	AAPL130119P00590000	43.75	↓ 3.30	43.75	44.25	62	2,910
595.00	AAPL130119P00595000	46.75	↓ 3.35	45.95	46.35	205	1,936
600.00	AAPL130119P00600000	48.60	↓ 4.00	48.25	48.65	589	10,999
605.00	AAPL130119P00605000	50.81	↓ 4.39	50.55	51.05	182	2,291
610.00	AAPL130119P00610000	52.95	↓ 3.95	53.05	53.45	131	1,280
615.00	AAPL130119P00615000	55.58	↓ 2.42	55.55	56.00	15	1,286
620.00	AAPL130119P00620000	58.40	↓ 3.80	58.10	58.55	12	1,895
625.00	AAPL130119P00625000	61.05	↓ 2.15	60.80	61.20	40	2,086
630.00	AAPL130119P00630000	65.01	↓ 2.89	63.45	63.95	2	1,190
635.00	AAPL130119P00635000	67.50	↓ 3.05	66.30	66.80	8	803
640.00	AAPL130119P00640000	71.55	↓ 2.70	69.20	69.70	48	1,370
645.00	AAPL130119P00645000	78.40	0.00	72.15	72.65	5	589
650.00	AAPL130119P00650000	75.35	↓ 3.46	75.25	75.70	76	2,039

### Options Symbols Explained

Here's a quick review on options symbols. Each option has its own ticker symbol, which contains information pertaining to the stock, the expiration, whether the option is a call or a put, and the strike price. Take this option symbol from Apple Inc.:

**AAPL130119C00550000**

The constituent parts of the symbol are as follows:

Stock	Expiration year	Expiration month	Expiration day	Call /put	Strike price
AAPL	13	01	19	C	00550000
Apple Inc	2013	January	19th	Call	550

So the top-left option is an Apple January 2013 call that expires on the third Friday—the 19th of January. The equivalent put option would be identical, except the “C” would be replaced by a “P” as shown in the following:

**AAPL130119P00550000**

## Options Contracts

Listed stock options are traded in contracts, each representing shares of the underlying security. This number is different for different types of assets worldwide. In the U.S., each contract controls 100 shares. In the UK, option contracts represent 1,000 shares of the underlying stock.

Therefore, when you see a U.S. equity call option premium for 1.45, you will have to pay  $\$1.45 \times 100$  for just one contract. One contract is the minimum amount you can trade, and for U.S. equity options, one contract represents 100 shares. In other words, by paying \$145.00 you acquire the right to buy 100 shares of the stock.

The following table outlines the amount of underlying securities that represent one contract for all sorts of different markets where options are traded on an exchange.

<b>Underlying asset</b>	<b>Units per options contract</b>
US equities	100 shares
UK equities	1,000 shares
S&P futures	1 future—worth \$250 each
Gold futures	1 future—worth \$100 each
Crude oil futures	1 future worth \$1,000 each

So continuing with the theme of U.S. stock options, one option contract represents the right over 100 shares of stock. This is vitally important when considering spread orders combining stock trading with options trading to create a new risk profile. For every one contract you buy or sell, you trade 100 shares for complete cover.

### Example 2.3 A covered call (or buy write) illustration

This example is purely to demonstrate that one contract is “covered” by 100 shares of stock (for U.S. stock options). The covered call strategy is used by traders who are looking to lower their cost of buying shares by capturing call option premium on, say, a monthly basis.

The steps for trading a covered call/buy write are as follows:

1. Buy the stock.
2. Sell calls one or two strikes out-of-the-money (OTM); for example, calls with strike prices one or two strikes higher than the stock. The aim here is to capture a

decent amount of premium, so we don't sell calls too far OTM because they'd hardly be worth it.



If you want to sell five contracts of ABCD 50 calls at 1.88 (where the ABCD share price is \$46.88), you will receive a premium for selling the calls (before commissions) of \$940. But you will need to buy 500 ABCD shares to be "covered." This will be at a cost of 500 times the ABCD share price.

So your net cost of doing this trade will be as follows:

Description	Calculation	Cost
Sell 5 ABCD call option contracts	$5 \times \$1.88 \times 100$	\$940
Buy 500 ABCD shares at \$46.88	$500 \times \$46.88$	(\$23,440)
		(\$22,500)

We discuss the relative merits of covered calls in Chapter 5, "Two Popular Strategies and How to Improve Them," and go through a real example in more depth. Personally, I am not keen on this type of risk profile for a lot of investors because the diagonal line keeps going down without stopping. For now, just keep in mind that when you combine stocks with stock options, you need to remember that one option contract represents rights over 100 shares of a U.S. stock.

## Option Exchanges

There are many (options) exchanges around the world. The U.S. is the mecca of the options trading world with more than ten major exchanges. Options volume is increasing almost every month, particularly stock options, as more and more retail (nonprofessional) traders become interested. The major U.S. option exchanges are the following:

Option exchange	Description
American Stock Exchange (AMEX)	<ul style="list-style-type: none"> <li>Stocks</li> <li>Options on individual stocks</li> <li>Stock indices</li> </ul>
Chicago Board of Trade (CBOT)	<ul style="list-style-type: none"> <li>Futures</li> <li>Options on futures for agricultural goods, precious metals, stock indices, and debt instruments</li> </ul>
Chicago Board Options Exchange (CBOE)	<ul style="list-style-type: none"> <li>Options on individual stocks</li> <li>Options on stock indices</li> <li>Options on Treasury securities</li> </ul>
Chicago Mercantile Exchange	<ul style="list-style-type: none"> <li>Futures</li> <li>Options on futures for agricultural goods, stock indices, debt instruments, and currencies</li> </ul>
International Securities Exchange (ISE)	<ul style="list-style-type: none"> <li>Options on stocks, ETF, index, and FX</li> </ul>
New York Stock Exchange (NYSE)	<ul style="list-style-type: none"> <li>Stocks</li> <li>Options on individual stocks</li> <li>Stock index</li> </ul>
Pacific Stock Exchange (PSE)	<ul style="list-style-type: none"> <li>Options on individual stocks</li> <li>Stock index</li> </ul>
Philadelphia Stock Exchange (PHLX)	<ul style="list-style-type: none"> <li>Stocks</li> <li>Futures</li> <li>Options on individual stocks</li> <li>Currencies</li> <li>Stock indices</li> </ul>

## Option Expiration Dates

Every option has an expiration date, which is always specified as a month, but there are now also weekly options. With the monthlies, U.S. equity, index, and Treasury/interest-rate options expire on the Saturday following the third Friday in the expiration month. Trading in the options ceases on the Friday, but the owner can exercise the options on the final Saturday.

## Strike Prices

Generally in the U.S., option strike prices used to start at \$2.50, then rising in \$2.50 increments up to \$25; once they hit \$25, they would go in \$5 increments

up to \$200; and at \$200, they would go up in \$10 increments. While many less liquid stocks still broadly adhere to this structure for their options, the larger cap stocks tend to have more strikes and weekly expirations. Note that anomalies will often occur after stock splits and mergers.

## Option Ticker Symbols

In 2010, options symbols changed to a more logical and more robust format.

Individual options have ticker symbols just like individual stocks do. The symbol identifies the underlying stock, the expiration month, the strike price, and the type of option.

Remember the AAPL example earlier where I deconstructed the symbol for an AAPL January 2013 550 strike call:

AAPL130119C00550000

The component parts are the following:

Stock	Expiration year	Expiration month	Expiration day	Call/put	Strike price
AAPL	13	01	19	C	00550000
Apple Inc	2013	January	19th	Call	550

The equivalent put option would be identical except the “C” would be replaced by a “P.”

AAPL130119P00550000

Stock	Expiration year	Expiration month	Expiration day	Call/put	Strike price
AAPL	13	01	19	P	00550000
Apple Inc	2013	January	19th	Put	550

This symbology is infinitely better than its predecessor and doesn’t need much explanation.

## Margin

The margin requirement is the amount of cash and securities required on deposit to cover the broker's risks. A margin account is a mechanism to ensure adequate collateral for trading activity. This is particularly relevant to those

traders who sell short, sell naked, or trade net credit spreads. With stock trades, margin works as a leverage mechanism—borrowed money—to expand holdings. With options, it is quite different because it is used solely to ensure adequate collateral.

**A margin account is a mechanism to ensure adequate collateral for trading activity. With stock trades, margin works as a leverage mechanism—borrowed money—to expand holdings. With options, it is quite different because it is used solely to ensure adequate collateral.**

When you buy shares, you either pay in cash or use a margin account (effectively borrowing funds from your brokerage) for up to 50 percent of the share purchase price. The *maintenance margin* is set to ensure that the balance in the margin account never becomes negative. This has in the past been set at around 25 percent of the value of the shares, although it varies.

When you buy call or put options, you must pay the purchase price in full. You cannot buy options on margin because options themselves already contain significant leverage, and buying options on margin would raise the leverage to unacceptable levels. Margin relates in this case to collateral requirements.

Selling (writing) options naked means that there are no covering trades to hedge the risk of the naked sale. The risk of selling calls and puts should be recalled; and the diagonal lines continue uninterrupted on the downside. It is this uninterrupted downside that needs to be protected. Therefore, when you sell naked call or put options, you are required to maintain funds in a margin account as collateral. This ensures that the option writer does not default on the obligation if the option buyer (who has the right) exercises the right. The size of margin varies based on the type of trade entered.

When you sell short or trade a net credit spread, while money is deposited into your account by the trade itself, there is still a contingent liability risk, which must be covered by sufficient funds left on deposit in your account.

These funds can be represented in either cash or marginable securities. A *marginable security* is an asset deemed by the brokerage to be secure enough to stand as collateral against your risk on the trade. A blue chip stock such as AAPL would be considered a marginable security, while low-priced stocks (under \$10) with little trading history, low trading volumes, and high volatility will not be acceptable collateral.

**Example 2.4a Buying stock**

Profile	Description	Risk	Reward	Breakeven
/	Buy asset	Purchase price	Unlimited	Purchase price

XYZ Inc. has a stock price of \$48.00 per share. You buy 300 shares and use margin to fund 50 percent of the total purchase price.

$$\begin{array}{lclcl} \text{Stock Price} & \times & \text{No. of shares} & = & \text{Total Purchase Price} \\ \$48.00 & \times & 300 & = & \$14,400 \end{array}$$

Using 50 percent margin to fund your cost of acquisition, you will therefore need to pay \$7,200 in cash for the trade.

$$\begin{array}{lclcl} \$14,400 & \times & 50\% & = & \$7,200 \end{array}$$

**Example 2.4b Shorting stock**

Profile	Description	Risk	Reward	Breakeven
/	Sell asset	Unlimited	Short sale price	Short sale price

Let's flip Example 2.4a, so instead, now we're selling the stock short. We will assume the same price information for the stock we are selling. The stock price is still \$48.00.

$$\begin{array}{lclcl} \text{Stock Price} & \times & \text{No. of shares} & = & \text{Total short proceeds} \\ \$48.00 & \times & 300 & = & \$14,400 \end{array}$$

However, in this example we require margin to cover our potential liabilities. The margin is calculated as follows:

100% of the amount of short sale proceeds in addition to the cash raised by the short sale

$$\begin{array}{llll} \$14,400 & \times & \$14,400 \text{ (short sale proceeds)} & \times & \$28,800 \end{array}$$

**Example 2.4c Buying calls**

Profile	Description	Risk	Reward	Breakeven
	Buy call	Call premium price	Unlimited	Strike price plus call premium paid

Continuing with XYZ Inc., let's assume that the call options have a premium of 6.00 for the strike price of 50, and we are buying four contracts.

$$\begin{array}{lclcl} \text{Option premium} & \times & \text{Units per contract} & \times & \text{No. of contracts} = \text{Total purchase price} \\ \mathbf{6.00} & \times & \mathbf{100} & \times & \mathbf{4} = \mathbf{\$2,400} \end{array}$$

Because you are not allowed to purchase options with margin, there is nothing else to work out here.

**Example 2.4d Writing naked calls**

Profile	Description	Risk	Reward	Breakeven
	Sell call	Unlimited	Limited to the call premium received	Strike price plus call premium paid

Let's flip Example 2.4c, so instead now we're selling calls (naked). We will assume the same price information for the call options we are selling. The calls have a premium of 6.00 for the strike price of 50, and we are selling four contracts. The stock price is still \$48.00.

Because we're now selling options, we are required to show sufficient funds in our account to cover the risk of being exercised.

The initial margin cover we need to show is the *greater of the following*:

- a. 100% of the option sale proceeds + 20%\* of the underlying share price - any amount by which the option is out-of-the-money (OTM)
- |                            |   |                                           |   |                            |
|----------------------------|---|-------------------------------------------|---|----------------------------|
| $6.00 \times 4 \times 100$ | + | $20\% \times \$48.00 \times 4 \times 100$ | - | $2.00 \times 4 \times 100$ |
| <b>\$2,400</b>             | + | <b>\$3,840</b>                            | - | <b>\$800 = \$5,440</b>     |

b.	100% of the option sale proceeds	+	10%* of the underlying share price	
	$6.00 \times 4 \times 100$ <b>\$2,400</b>	+	$10\% \times \$48.00 \times 4 \times 100$ <b>\$1,920</b>	= <b>\$4,320</b>

\* Note that the percentage figures quoted may not be those used by your broker account. These are simply examples to illustrate how margin works in principle.

You can use the option sale proceeds of \$2,400 to set off against the initial margin requirement. This means that:

	Margin requirement	Sale proceeds	Additional funds required
a.	\$5,440	\$2,400	\$3,040
b.	\$4,320	\$2,400	\$1,920

Because we have to take the greater amount, the initial margin requirement is \$5,440 in calculation (a), and we therefore need a further \$3,040 in liquid funds in our account to facilitate this trade.

#### Example 2.4e Buying puts

Profile	Description	Risk	Reward	Breakeven
	Buy put	Put premium	Strike price less put premium paid	Strike price less put premium paid

Continuing with XYZ Inc., let's assume that the put options have a premium of 7.50 for the strike price of 50, and we are buying four contracts.

$$\text{Option premium} \times \text{Units per contract} \times \text{No. of contracts} = \text{Total purchase price}$$

$$7.50 \times 100 \times 4 = \$3,000$$

Because you are not allowed to purchase options with margin, there is nothing else to work out here.

**Example 2.4f Writing naked puts**

Profile	Description	Risk	Reward	Breakeven
/	Sell put	Strike price less put premium received	Limited to the put premium received	Strike price less put premium paid

Let's flip Example 2.4e, so instead now we're selling puts (naked). We will assume the same price information for the put options we are selling. The puts have a premium of 7.50 for the strike price of 50, and we are selling four contracts. The stock price is still \$48.00.

Because we're now selling options, we are required to show sufficient funds in our account to cover the risk of being exercised.

The initial margin cover we need to show is the greater of the following:

- a. 100% of the option sale proceeds + 20%\* of the underlying share price - any amount by which the option is out-of-the-money (OTM)
 
$$7.50 \times 4 \times 100 + 20\% \times \$48.00 \times 4 \times 100 - 0 \times 4 \times 100$$

*(remember this is a put and here the put is actually in-the-money (ITM))*

$$\$3,000 + \$3,840 - 0 = \$6,840$$
  
- b. 100% of the option sale proceeds + 10%\* of the underlying share price
 
$$7.50 \times 4 \times 100 + 10\% \times \$48.00 \times 4 \times 100$$

$$\$3,000 + \$1,920 = \$4,920$$

\* Note that the percentage figures quoted may not be those used by your broker account. These are simply examples to illustrate how margin works in principle.

You can use the option sale proceeds of \$3,000 to set off against the initial margin requirement. This means that:

Margin requirement	Sale proceeds	Additional funds required
a. \$6,840	\$3,000	\$3,840
b. \$4,920	\$3,000	\$1,920

Because we have to take the greater amount, the initial margin requirement is \$6,840 in calculation (a), and we therefore need a further \$3,840 in liquid funds in our account to facilitate this trade.

## Placing Your Trade

It's likely that you'll place most of your trades online.

Because options prices are not always "clean," it is preferable to place limit orders, particularly on spreads. This ensures orders are filled at your specified price or not at all.

## Types of Order in the Market

### Market Order

With market orders, you authorize your broker to buy or sell stock or options at the best price in the market.

### Limit Order

With limit orders, you do one of the following:

- Buy only if the share falls to a certain price or lower.
- Sell only if the share rises to a certain price or higher.

Limits are recommended with options, particularly for spreads and combination trades. The reason for this is that the bid/ask spread prices can fluctuate dramatically and often not in your favor, so it's better to specify your prices.

## Stop Loss/Sell Stop (Defensive)

This is where you sell if stock falls below a certain price. (Sell stop is placed below the current price.) You can increase the stop loss if the share rises.

## Buy Stops

This is where you buy only after the stock has reached or exceeded a certain price. This is the opposite of a limit order where you buy a stock when it has fallen to a certain price. A buy stop is appropriate where you expect a stock to rise beyond a resistance level or bounce up from a support level.

- *Buy stop with limit:* Buy only when the stock is between two prices.
- *Buy stop with limit and stop loss:* Buy between two prices and sell if below another price.

## Time Limits with Trade Orders

### Good Till Cancelled (GTC)

This is when the order is valid unless and until you cancel it or until it is filled. For example, a limit order GTC means you authorize your broker to buy the stock at a particular price or lower, today or any time in the future when the stock is selling at that particular amount, until you have bought the requisite number of shares.

Be careful with GTC orders because these orders generally do not go to the top of the list of floor traders' priorities.

### Day Only

The order is cancelled if it is not filled by the end of the day. This is a good ploy because it encourages the floor traders to deal. If they don't by the end of the day, then they won't get their commission, so there is an incentive for floor traders to put this type of trade nearer to the top of their list. With some brokers, stop-limit orders can only be placed on a day-only basis, so they would need to be placed again the following day if you don't get filled.

## Week Only

The order is cancelled if it is not filled by the end of the week.

## Fill or Kill

This is the order of maximum priority. If it isn't filled immediately, the order is cancelled. A fill or kill order is bound to capture the attention of the floor trader, but if it's a limit order, then you need to make it realistic.

## All or None

Either the entire order is filled or none of it is filled. This is not generally a good idea given that many trades aren't filled all at once anyway because there has to be a buyer or seller on the other side, and most of the time they won't be specifically dealing in the same lot sizes as your order. So if you want to be sure to get filled, don't go for all or none.

## Always Have a STOP in Mind Whenever You Make a Trade

This is covered in Chapter 10, "Trading and Investing Psychology," and in Chapter 11, "Putting It All Together—A Call to Action." It is imperative that you know where you will exit a position, whether it is a profitable situation or otherwise. Some people don't like to actually place stops with their brokers. Fair enough, but you must have one in your mind at the very least, and once there, you must act on it if the stop has been breached. Also, you must always have in your mind when you are likely to want to take profits, and you must act on that too if and when the situation occurs.

**It is imperative that you know where you will exit a position, whether it is a profitable situation or otherwise.**

You can set a *mental stop*, where the market makers cannot see what you are doing and artificially manipulate the price to take advantage of you. If you set a mental stop, write it down and be honest enough to stick to it, however much it might hurt.

Where you place your stops is up to you, but generally, with stocks, you should position them beyond the appropriate support or resistance area. I almost exclusively trade breakouts around support and resistance, so my stops are always logically positioned.

I recommend that when trading options, you base your stops on the stock price, not the option prices, UNLESS you are trading spreads (where you have more than one leg to a trade) or unless you are trading options intraday (not recommended) with Level II type screens.

## Whipsaws

A *whipsaw* occurs when a price changes direction twice or more in very quick succession; in intraday trading terms, this can literally happen in a few ticks.

Although I do advocate the use of stops to limit your losses, you should be aware of the dangers of whipsaws and how you can get “stopped out,” thereby surrendering what might have turned out to be a winning position. For example, if you buy a stock for \$51.00 and put in a tight stop at \$50.00, the stock might

You should be aware of the dangers of whipsaws and how you can get “stopped out,” thereby surrendering what might have been a winning position.

initially rise, then within a few ticks or five-minute bars, it might break down through \$50.00 before resuming its uptrend. The problem is that you’ve been stopped out when the price broke down through \$50.00 even though the price might later recover to, say, \$55.00. This type of action is particularly relevant to intraday traders and options

intraday traders. Personally, I don’t recommend intraday trading options unless you are experienced and have the fastest online connection speeds and brokerage account facilities to execute trades in a few seconds maximum. Speed and knowledge are vital prerequisites if you are trading options intraday.

## Trading Tips

Remember, the most important things you need to know about any options trade are

- Your maximum *risk* on the trade
- Your maximum *reward* on the trade
- Your *breakeven* point(s)

*OptionEasy’s Analyzer* gives you these crucial figures in both nominal and actual formats for 64 different strategies.

In addition, you also should know in advance:

- The maximum loss you will accept and when to get out of a loss-making trade
- When to take your profits

These are crucial money-management criteria, which you must preset in your own mind (and preferably on paper) before you commit to any trade. There are wide parameters concerning money-management techniques, and much depends on your own appetite and respect for risk. Just keep in mind that it is generally a good thing to cut your losses short and to let your profits run. We discuss trading psychology in greater depth in Chapter 10.

## Leverage and Gearing

The words “leverage” and “gearing” are used frequently in the financial world. In terms of a company’s financial structure, they mean the ratio of borrowings over assets. The higher a company’s gearing, the higher its return on equity. A higher gearing also means greater risk to the company because if fixed and variable costs are not exceeded by turnover, the company’s creditors might be able to foreclose the company by calling in the loans.

The words have a similar but not identical meaning in the options world. Options have high leverage because a small percentage move in the underlying asset can mean a very high percentage move from the corresponding options.

## How Does Leverage with Options Work?—A Worked Example

### Example 2.5 Leverage with options

ABCD Company has a stock price of \$20.00. You decide to buy a call option with an exercise price ( $e$ ) of 25.00. The call option costs you 1.00. Remember an option has two parts to its value:

- Time value
- Intrinsic value

In this example, until the stock price of ABCD rises beyond \$25, there will be no intrinsic value because the exercise price is 25.00. So even if ABCD stock rises to \$25, there is no intrinsic value until it goes above \$25.00. *For this example, assume that*

*there is no change to the time value element.* So if ABCD stock price now rises to \$30, what is the intrinsic value of the option?

Answer:  $30 - 25 = 5.00$ .

Therefore, in most cases the value of the call option must be *at least* 5.00. *Conclusion:* ABCD stock price has risen from \$20 to \$30; this is an increase of 50 percent. The option premium has risen from 1 to 5; this is an increase of **400 percent**. Now *that's* leverage.

But remember that leverage works the other way too, and this is why we encourage you to trade in certain ways, to protect you in the event that things go the other way.

If ABCD stock price moves back down to \$20 from \$30, this is a decrease of 33 percent.

The option price may move from 5 back down to 1—a far larger percentage decrease. It is these potential decreases that we need to be protected from.

## A Brief Introduction to Delta (Hedge Ratio)

What you have seen in Example 2.5 is the phenomenon of *delta*. Delta is measured as the change in option price divided by the change in the underlying asset price, as follows:

$$\text{Delta} = \frac{\text{Change in option price}}{\text{Change in underlying asset price}}$$

As you just witnessed, when a call option becomes in-the-money (ITM), the delta increases. So the higher the delta, the faster the option price moves as compared with the stock price. However, buying out-of-the-money (OTM) options is not the answer either. By doing that you reduce your chances of success because the change in option price (compared with the stock price) is much slower; therefore, it is more difficult to make profit. Besides that, the probability of the option expiring ITM is that much lower as well.

When we discuss basic strategies later on, we uncover how you can protect yourself against delta by using combination or “spread trades.” These spread trades are intended to reduce your risk exposure to delta by bringing the delta value close to zero, so that you are not exposed to such wild swings on the downside, while also keeping your probability of success high. This is known as *delta neutral trading*.

Even at this stage, it’s important for you to understand that delta neutral does not mean you have no risk. Delta neutral trading is sometimes talked about as some sort of nirvana. This is not the case, although it should be pointed out

that it can significantly reduce risk in certain scenarios and with particular strategies—it is mainly useful for the professionals only. I don't mind being exposed to delta because I'm typically using options in their simplest context—buying deep in the money calls or puts—to increase my leverage.

## Chapter 2 Major Learning Points

In this chapter, you learned the following:

- How to read options prices on your screen
- How options contracts work and that with stocks, a contract represents more than one share
- How options expiration dates and exercise prices work
- About the benefits, risks, and characteristics of margin
- The different types of trade orders in the market
- About leverage with options
- About delta

Before we go on to explore some options strategies, it's important that we cover some basic concepts of *fundamental* and *technical* analysis so that you can begin to understand how to spot possible stocks (targets) for the strategies you're going to learn to apply later in this book.

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## chapter 3

# The Basics of Fundamental Analysis

Fundamental analysis is the study of individual companies and how they perform in terms of

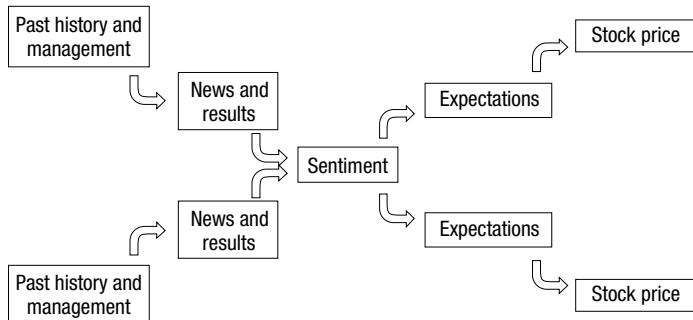
- Revenues
- Profits
- Assets
- Borrowings

In simple terms, most of the key financial ratios that you will see are manipulations of these four items. We look at the main ratios and their significance later in this chapter.

Why do we need to know about fundamental analysis? Because the company's share price is ultimately the market's reflection of how valuable that company is. If a company makes profits and these profits are growing year after year, with borrowings contained to low levels and revenues also growing, then this is an ideal company to invest in, provided you expect the company to continue growing at such levels.

Remember that stock prices are primarily driven by expectations. Expectations are fueled by current sentiment. Sentiment is influenced primarily by news and past history. News on the corporate level involves the company's financial results and its plans for the future. From a wider perspective, news involves the economy at large both nationally and internationally.

**Diagram 3.1 ● Fundamental influences on stock prices.**



## Past History and Management

What does the company do? How has it performed in the past, and what is the track record of its management team? Is this company in an industry or sector that has a prosperous future where its goods and services are going to be in demand for the foreseeable future? Does the incumbent management have a track record of consistently increasing earnings and shareholder value in this or other companies?

Many investors make their investment decisions based solely on the quality and track record of management.

## News and Results

News concerns the world at large, the wider economy, the sector of the stock, and the company itself.

**The specter of inflation and the use of higher interest rates to combat it is a problem for many stocks.**

then higher interest rates, all of which would impact many companies negatively as their own cost bases rise, therefore impacting on their margins and overall profitability. The specter of inflation and the use of higher interest rates to combat it is a problem for many stocks in general. When sentiment is worried about the increasing risk of higher inflation, the markets will generally become more uncertain, volatile, and might fall.

With Microsoft in its growth heyday, a persistent news story was the anti-trust lawsuit, following allegations of the company exploiting an unfair

An example of news that might affect the markets and stock prices is oil prices rising wildly and the knock-on effects this could have. These effects might include higher transportation costs, leading to higher production prices, leading to higher inflation, and

monopoly—how times change so fast in technology. Every time the story developed, the latest news item had an impact on the stock price and the volume of shares traded as a result of that news (or the expectation of its consequences). In more recent times, the financial stocks have been battered by various news stories and scandals that have pervaded the sector.

Earnings results reflect the financial performance of the individual company and in the U.S. are published quarterly (UK half yearly). Again, the most important numbers you want to pinpoint are those reflecting the company's earnings and *Earnings per Share*.

## Sentiment and Expectations

Is it true to suggest that the markets are driven by emotions? Well, certainly greed and fear do make a significant contribution to prices in any market context. How can it be that a company with little history and no earnings whatsoever can be valued in the billions of dollars? Does that company have proprietary technology that can change the world as we know it? Does the company have such a convincing marketing and growth strategy that investors are purely valuing the company based on expected gross revenues?

Whatever the case, market sentiment doesn't necessarily work in a logical way, and sometimes it's difficult to understand how a company like Coca-Cola or McDonald's can get panned when delivering consistently good results when others who don't earn a dime are hailed as the new saviors of the markets. It is this sentiment that drives expectations of the company's future performance. And as we know from our everyday lives, sentiment can turn on a dime.

Expectations come in numerous forms, both in terms of the company's results but also in terms of the analysts' recommendations on the company's share price. It's amazing how wildly inaccurate analysts' recommendations can be. Of course, no one can be right all the time, but sometimes they're nowhere near. So be cautious when it comes to analysts' recommendations. In the past, most analysts worked for firms that ultimately wanted to do business with the companies on whom they were reporting. This is why you rarely saw a "Sell" recommendation on a stock, even if it was an obvious sell. They didn't want to be seen as being too insulting, just in case a business opportunity would arise in the future. After many banks were fined for their clear lack of Chinese Walls, a number of independent firms sprouted up purely to give analysis. I still suggest some caution.

Eventually growth companies stop growing at their phenomenal rates, and therefore their PE ratios come back down to normal levels.

A word of caution: Be careful about listening to gurus' recommendations. Interviewees are always under pressure to give recommendations and watch lists out to their audience. It can become a rod for the instructor's back because if just *one* recommendation goes wrong (even temporarily), the viewer can become disillusioned. No one gets it right all the time, and in most cases, it's how you *manage* your winners and losers that counts, not how many good or bad ones you pick. We talk more about money management in Chapter 10, "Trading and Investing Psychology."

## The Wider Economy

Before delving into an individual company's fundamentals, let's take a brief look at some basic economics. Those of you who have previously been scared of economics, don't be here. In the overall scheme of things, we're just talking common sense here, and a good place to start is with the country at large and the wider economic climate. This is called taking a "top-down approach." It means we are looking at the broader picture—in other words, how is the general economy performing? Are any storm clouds looming? This is a sensible approach, and your success depends on keeping your senses alive and alert to what is going on around you anyway. It doesn't take much; just keep up to date with the news, and you will have enough background knowledge to get a feel. From here, you can start to chain events into likely scenarios developing later on.

Remember, this is not an economics book, but there are some key figures that have major significance in each economy wherever you live in the world. Those in the following table are specific to the U.S.; however, they have equivalents in every Western economy.

Statistic	Meaning and significance	Look for...
<b>Gross Domestic Product (GDP)</b>	The broadest measure of economic activity, GDP measures the output of products and services located within a country irrespective of whether their owners live there or abroad. GDP is a measure of the economy's performance within its own territory. This is why a foreign company building a factory within a host country is seen as good news for the host country. The obvious knock-on effect includes increased employment within that host country. When GDP is positive, the economy is growing; when GDP is negative, the economy is shrinking.	1% to 5% consistent growth per annum. In a mature economy, this range is healthy. Obviously, if GDP is negative, the economy is shrinking, thereby diminishing the wealth of the country. A recession is contentiously defined as two successive quarters of negative GDP.

Statistic	Meaning and significance	Look for...
<b>Gross National Product (GNP)</b>	Not as widely followed as GDP, GNP includes goods and services produced abroad by the domestically owned organizations. Hence, net property income from abroad must be added to GDP to obtain the GNP.	Same as Gross Domestic Product, but it's fine to simply use the GDP figures.
<b>Inflation</b>	Inflation is the measure of price changes within the economy. Inflation is the measure of how much each unit of currency diminishes in its buying power. So if inflation is 10% per annum, then in one year's time, \$1.00 will buy you 10% less than it does today, meaning you'll need \$1.10 to buy the equivalent products in a year's time. Inflation is seen as damaging to an economy, and it has obvious implications on an economy's currency. All other things being equal, a high-inflation economy's currency will fall in value. Logically this has to be the case because if you go to a high-inflation economy where prices are rising all the time, you won't want to pay as much for that currency, hence the currency value will fall as a result of a lack of demand for it. A word of caution, however: Governments and central banks manipulate interest rates and money supply within the economy in order to influence inflation.	0.5% to 4% per annum is historically a healthy figure since inflation became a major issue for economies in the 1960s. At this time, however, we have enjoyed historically low inflation over the last five years, under 3%. Look for the trend to remain steady with no significant increases.
<b>Interest rates</b>	Set by the central banks or governments in each economy as the borrowing rate of the central bank. In a "monetary economy," interest rates are used by economic managers to control inflation and keep it low. High interest rates mean higher borrowing charges for companies and individuals, particularly mortgage holders, which in turn means less money for buying goods and services, which in turn reduces demand for goods and services, which in turn increases supply for those goods and services, which in turn reduces prices, thereby reducing inflation. The trick is to keep inflation and interest rates stable while also managing a steadily growing economy.	Look for low and declining interest rates. Historically, in the U.S. and UK, between 4% and 7% has been low in the last 30 years, although, like inflation, the immediate trend of the last five years has been on the low side.

Statistic	Meaning and significance	Look for...
<b>Unemployment</b>	In the last few years, unemployment has dropped to its pre-1980s levels when maturing economies, such as the U.S. and UK, were undergoing massive restructuring away from the manufacturing, labor-intensive sector toward the service sectors. This was typically a long and painful process for many developed economies as technology swept through old manufacturing processes, abolishing the need for massive workforces. With union powers constricted during the 1980s by more conservative governments, unemployment soared until such time that the services and technology sectors were able to swallow up those people who were made redundant.	Low and declining. Somewhere between 3% and 8%, although note that recent levels are returning to levels not seen since the early to mid-1970s.
<b>Economic events to watch out for:</b>		
• FOMC meetings.	• Interest rates and monetary policy decisions made.	• Interest rates on the decline.
• Earnings results from blue chip companies and stock market "bellwethers" (for example, Microsoft, IBM, and Intel). The health of these types of companies can help to shape the health of the rest of the market.	• The general health of the economy and how individual companies are performing.	• Rising profits and confident projections from management.
• Employment figures every first Friday of the month.		
• PPI/CPI/Leading Economic Indicators (LEI).		

## Economic Indicators to Watch (U.S. Only)

### Consumer Price Index (CPI)

The CPI is the most widely cited inflation indicator and is used as a measure of the price levels of goods and services purchased by consumers. The CPI is seen as the best measure of the underlying inflation rate in the U.S. economy.

The figures are released at 8:30 a.m. EST around the thirteenth of every month, reporting with respect to the prior month (details can be found at <http://stats.bls.gov/news.release/cpi.toc.htm>).

### The Employment Report

Made up of two separate surveys, the Household Survey (60,000 households) and the Establishment Survey (375,000 businesses), the Employment Report produces the unemployment rate figures.

The Employment Report figures are released at 8:30 a.m. EST on the first Friday of every month, reporting with respect to the prior month (details can be found at <http://stats.bls.gov/news.release/empsit.toc.htm>).

### Gross Domestic Product (GDP)

The broad components of GDP (described in the previous section) are consumption, investment, net exports, government acquisitions, and inventories.

GDP figures are released at 8:30 a.m. EST on the third or fourth week of the first month of the new quarter with respect to the prior quarter's activity. Subsequent revisions are made in the second and third months of the quarter (more details can be found at <http://bea.doc.gov/dn1.htm>).

### Housing Starts and Building Permits

Housing Starts are a measure of the number of residential units on which construction has begun each month. A start is defined as the beginning of excavation of the foundation for the building and is comprised primarily of residential housing. Housing Starts are led by Building Permits (which allow the excavations to subsequently happen), but permits are not required in all regions of the U.S.; therefore, the Starts figure is more telling. The Housing Starts

figures are notoriously volatile, being affected by extreme weather and natural disasters.

The figures are released at 8:30 a.m. EST around the sixteenth of the month, with respect to the previous month's data (more details can be found at [www.census.gov/ftp/pub/indicator/www/housing.html](http://www.census.gov/ftp/pub/indicator/www/housing.html)).

## **National Association of Purchasing Managers (NAPM)**

The NAPM report is a national survey of purchasing managers and is calculated by way of a weighted average of items including new orders, production, employment, inventories, delivery times, prices, and export and import orders. NAPM only covers the manufacturing sector but is seen as a leading indicator for other economic releases.

The figures are released at 10 a.m. EST on the first business day of each month with respect to the prior month's data (more details can be found at [www.napm.org/public/rob/lastrob1.html](http://www.napm.org/public/rob/lastrob1.html)).

## **Producer Price Index (PPI)**

The PPI is another measure of inflation. It measures the prices of goods at the wholesale level.

The figures are released at 8:30 a.m. EST around the eleventh of each month, with respect to the prior month's data (more details are available at <http://stats.bls.gov/news.release/ppi.toc.htm>).

## **Retail Sales**

This is a measure of the total receipts of retail stores. Often analyzed excluding figures for automobiles, food, and gasoline, it's the changes from month to month that you're looking for to identify shifts in consumer demand. Retail sales figures exclude spending on services, which nowadays makes up over half of total consumption. Total personal consumption figures are normally available around two weeks after the Retail Sales figures are published.

Retail Sales figures are published at 8:30 a.m. EST around the thirteenth of each month (more details can be found at [www.census.gov/svsd/www/advtbls/html](http://www.census.gov/svsd/www/advtbls/html)).

## The Economic Calendar

Sun	Mon	Tues	Weds	Thurs	Fri	Sat
1 NAPM	2	3	4	5	6 Employment Rate	7
8	9	10 PPI	11	12	13 Retail Sales CPI	14
15 Housing Starts Building Permits	16	17	18	19	20 Expiring equity, index and Treasury/ interest-rate options cease trading	21 Expiring equity, index and Treasury/ interest-rate options expiration date*
22	23 Consumer Confidence FOMC	24	25 FOMC Minutes	26	27 New Home Sales GDP	28
29 Employment Cost Index	30	31 PMI				

\*Equity LEAPs expire in January. Index LEAPs expire in December or January. Interest-rate LEAPs expire in December.

For a complete view of the economic calendar, go to <http://biz.yahoo.com/c/e.html>.

Expiring equity, index, and Treasury/interest-rate options typically cease trading on the third Friday of every month and officially expire on that Saturday.

Futures contracts typically close during the third week of each quarter. Each quarter is a three-month period, and the year starts on January 1.

## Bonds

T-bills (government) and bonds (corporations) are known as “fixed-income” securities because the amount of income they generate each year is “fixed” or set as a “coupon” when the T-bill or bond is issued. No matter what happens or who holds the T-bill or bond, it generates exactly the same amount of money each year. This coupon is effectively an obligatory interest payment made by the issuer.

Bonds are issued by corporations that need to raise money. Corporate bonds normally carry higher interest rates than T-bills or government bonds because

there is a higher risk that the company could go bankrupt and default on the bond. Both government bonds and corporate bonds can be traded in the open market, and when we see CNBC or Bloomberg TV referring to the *bond markets*, this is what we mean. The 30-year bond is generally seen as the “cost of doing business.”

## Bond Basics

- We already understand that bonds are DEBT instruments, requiring the issuer (borrower) to pay a fixed interest payment (coupon) with respect to the amount raised by the issue of the bond.
- Bonds are issued at *par value*. Par value is the amount that you (the lender) receive back from the borrower at the end of the term when the bond matures (that is, when the borrower has to pay back the loan).
- The coupon rate is the amount of interest the bondholder receives (per annum) expressed as a percentage of the par value of the bond. For example, if a \$100 million bond is issued with a coupon rate of 8 percent, the owners of the bond collectively receive \$8 million per annum from the bond-issuing company.
- At maturity the bond-issuing company (borrower) has to redeem (pay back) the principal amount of the loan, so in the above example, they would redeem \$100 million.
- The bigger and safer the corporation, the lower the coupon rate will be. For example, GE typically pays a lower coupon rate than Joe Schmo’s because GE is rated by Moody’s as a AAA covenant, unlikely to default on the loan, whereas Joe Schmo’s is rated at only, say, a C.

## Bond Markets

Bonds are traded on the markets. What we want to know is how bonds relate to the equity markets.

- If the bond is issued at par for \$100 million, let’s assume for simplicity that each unit of that bond can be bought for \$100. This means that the bond has 1 million units of itself being traded on the open market.
- We already know that 8 percent is payable on that bond, with respect to its par value of \$100 million in total, or \$100 per unit. Therefore, if we buy one unit, we know that we will receive a coupon of \$8 per unit per annum.

- Bonds go up and down in price on the open market. So while par value may be \$100 per unit, in a strong market, the bond might trade at greater than \$100, and in a weak market, the bond might trade at less than \$100. Whatever the bond is trading at, the same coupon of \$8 per annum is payable. What this means is that as the values of bonds fluctuate on the open market, so do the yields on those bonds. The following table illustrates this.

	Weak market	Strong market
<b>Bond issued at par value</b>	\$100	
<b>Coupon rate (per annum)</b>	8%	
<b>Coupon payment (p.a.)</b>	\$8.00	
<b>Bond trading value</b>	\$90	\$110
<b>Bond yield</b>	8.9%	7.3%

See how the lower bond price (in the weak market column) translates directly into a higher yield and how the higher bond price (in the strong market) translates directly into a lower yield. Remember that the coupon payable remains at \$8 per annum. What has changed is the price the market is prepared to pay for that bond that was originally issued with a par value of \$100. Here, it's easy to see that if you pay \$90 to get \$8 in interest payments, your yield is higher than if you had to pay \$110 to get \$8 in interest payments.

Rules of thumb include the following:

- When the bond market is strong, bond prices are higher, bond yields are lower, and the stock market is stronger.
- When the bond market is weak, bond prices are lower, bond yields are higher, and the stock market is weaker.
- Where bond yields are greater than around 6.75 percent, the stock market might suffer because yields are that much better in bonds.
- Where bond yields are less than 3.5 percent, the stock market might become stronger because bond yields are too low for an acceptable return.

Remember, not everything works all the time; these are rough and ready rules of thumb.

## Supply and Demand

In economics, virtually everything ultimately boils down to supply and demand. Prices are a result of supply and demand. Many economic indicators are there to guide us so we can make a likely assessment of supply and demand in the overall economy. When you look at any sort of economic indicator, the trail you want to follow is the one that asks what effect there'll be on supply and demand.

For example, if unemployment rises, how will this affect the economy? Well, with fewer people at work and companies cutting back on their workforce, it's likely that those people will have less money to spend. Those who still work might not feel so secure in their jobs, so they might be more inclined to beef up their savings and cut back on spending. The result can be that demand for various goods and services such as leisure and consumer goods (such as furniture) will decrease, meaning less revenue and less profit for companies in the consumer goods, leisure, and retailing sectors. What do you imagine would happen to stocks in those sectors? Of course, they'd be inclined to go down just merely at the whiff of a slowdown because more traders will sell the stocks in anticipation of inferior results in the future.

### The Basic Rule of Supply and Demand

- *When demand outstrips supply, prices go up.* This can occur either because demand becomes rampant or supply becomes restricted or bottlenecked. If there is a bad harvest of oranges, then orange prices are bound to go up even if demand only remains static—because the equilibrium will have been shifted.
- *When demand drops relative to supply, prices go down.* Rarely do winter sales at the department stores include the most popular items of clothing. You usually just get those items that fall into the category of “inventory to clear” to make way for the newer trendier ranges. Again, it's the classic case of demand declining for the old stuff so the retailers sell it off cheaply, and that's why the best bargains can be found at the end of the sales. Unfortunately, those bargains are often the most hideous garments and for those less-common sizes because those are the only ones left. Still, the lessons of demand and supply are all around us.
- *When the relationship between demand and supply is steady, prices will be more or less steady.*

Nasdaq Level II traders can see the laws of supply and demand on their screens as they trade. Do you think being able to interpret a Level II screen would help

you intra-day trade a stock? You bet it would—because not only would you be able to see how many buyers and sellers there are at the various price levels, but you'd also get to see WHO they are. Nasdaq Level II trading is a serious business and one that is worthwhile for anyone serious about trading in general.

Take care in your interpretation of “rules” in the marketplace. Many myths are created and can be proliferated and even accepted by the masses even when they are simple to disprove. A popular myth is that the real estate market performs well with high inflation or is a good hedge against inflation. This simply is not the case. A more in-depth study into the real facts shows conclusively that the statement is a dangerous myth, yet it's widely believed to be true. It's not within the scope of this book to give a complete explanation of how and why, but it is worth noting that during the higher inflationary periods of the early 1980s and early 1990s, real estate values suffered drastically while the stock markets in the U.S. and UK did not suffer nearly as badly. Not my idea of a good hedge. The fact is that there were many other factors involved that can be simply explained. But the point is that sweeping generalizations are myriad in the financial markets, and many of them are misleading and dangerous.

## Avoid Forecasting—Trade What You See

Many people try to see what they want to see and not necessarily what is actually going on. Don't fall into that trap. Pay attention to what is going on, be aware of indicators that suggest things may change, but do not get into forecasting. Warren Buffett is quoted as saying, *“Forecasting tells you much about the forecaster and nothing about the future.”*

Hype, fear, and greed have always existed.

Remember, nothing changes all that much with the markets. Human beings will always be human beings. Just read *Extraordinary Popular Delusions and the Madness of Crowds* (Mackay, 1980), and you'll see that hype, fear, and greed have always existed.

The markets are certainly affected by events in the wider economy, such as those listed here and others, such as oil prices (a major influence on inflation) and government announcements, which can lead to short-term panic buying, selling, or both. Be aware of these news items and their impact on short-term volatility swings. Markets in general have major personality disorders, and one of our jobs is to make sense of it and stick to our principles, whatever they may be. In *The Intelligent Investor* (1973), Benjamin Graham, one of the legendary investors and inspiration of Warren Buffett, refers to “Mr. Market” being your business partner who gives you prices at which he'll buy and sell your stocks. Being something of a “manic depressive,” Mr. Market often has wild mood

swings and will change his mind on prices in just a matter of seconds. The point is that it doesn't affect the intrinsic value of the stock, and it shouldn't sway your opinion of it either if you are a long-term investor. Short-term traders simply don't care about intrinsic values of shares and will pay far more attention to the technical analysis indicators (Chapter 4, "The Basics of Technical Analysis"). And for that type of trading, that outlook is fine. Ultimately, you'll have to decide for yourself what kind of trading or investing you're most suited to.

## Market Direction

If you get nothing else out of this book, do get this: Learn to recognize which prevailing direction (if any) the market is moving in, but never try to predict it. Anticipation and recognition are different from making a prediction. There are now several useful tools and software products to help you recognize the prevailing market direction. In the next chapter, we discuss technical analysis, which will assist you in finding chart patterns and indicators to help you determine market trends and movements.<sup>1</sup> A simple rule is to buy the safest stocks and long-term bullish options strategies when the market is going up and to sell the worst stocks (ones that don't make money and aren't likely to) when the market is going down. Why fight the tide? It simply doesn't make sense, so don't do it. You can sleep a lot better at night as a result, and you don't even have to bother to try to forecast anything if you're going by fundamentals in this way.

## Corporate Fundamentals

When we invest in a company, we invest in its potential to make more products, more profits, to continue to grow, and to add value to the price of each individual share.

A share of stock represents one unit of ownership in that company. All shares of that stock in circulation, multiplied by its value per share (share price), make up the market's estimate of the value of that company—that is, the *market capitalization*.

The more profits a company makes and the faster those profits grow and are projected to grow, the higher the company's value IN THE LONGER TERM at least. History tells us that consistent growth in sales and earnings lead to a higher stock price in the longer term—and vice versa.

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<sup>1</sup> Chapter 4 is specifically designed to simply enhance your awareness of technical analysis. It does not go into such depth as to discuss preferred settings or preferred indicators.

## Earnings (Per Share) Growth—The Driver for Higher Stock Prices

This is what the market looks for in great companies. Not just earnings (profits), but earnings that are growing quarter on quarter, year on year. If you're looking for the best companies, then you can simply base your search criteria on this. However, there is one word of caution. Ensure that the overall earnings growth is reflected in the *earnings per share (EPS)*. After all, you are looking to buy and sell shares, not the entire company. The significance of this is that companies can change their share structures as a result of takeovers, mergers, large acquisitions, and scrip (bonus) issues. This can lead to a dilution in shares—that is, there can be more shares in circulation, meaning that if increased profits have to be divided by an increased number of shares, the profit per share may not increase that much or at all, even if the company has increased its profit overall.

**Ensure that the overall earnings growth is reflected in the earnings per share (EPS). After all, you are looking to buy and sell shares, not the entire company.**

of ownership declines as a percentage of total ownership in the company if the overall earnings or value remain constant.

### Example 3.1 Impact of share dilution (rights issue example)

Takeoverco Inc. has 10 million shares outstanding. Each share is priced at \$50.00. Last year's profits were \$25 million. You buy 1,000 shares of Takeoverco Inc. at \$50.00 per share.

- The market capitalization (market value) of Takeoverco Inc. is:  $\$50 \times 10\text{ million} = \$500\text{ million}$ .
- The current value of your holding in Takeoverco Inc. is therefore:  $\$50 \times 1,000 = \$50,000$ .
- The percentage ownership stake you have in the company is  $1,000/10,000,000 = 0.01\%$ .
- Earnings per share (EPS) is \$25 million divided by 10 million shares = \$2.50 per share.
- The price/earnings ratio (PE ratio) is the price of the stock divided by the EPS. Therefore, the PE ratio =  $50/2.50 = 20$  times.

- The PE ratio represents the number of years the company will have to make the same amount of profits to equal the current share price. The higher the PE ratio, the higher the stock is rated by investors.

Takeoverco Inc. wants to buy a smaller company called Targetco Inc. To do this, it needs to raise \$100 million. To raise the \$100 million, Takeoverco issues 2.5 million shares at a discounted price of \$40.00 per share. (*Rights issues are usually made at a discount to current value; however, we have simplified and exaggerated the numbers here for illustration purposes.*)

There are now 12.5 million shares outstanding in Takeoverco. You still have 1,000 shares (assuming you don't take up your pre-emption rights). The newly merged company posts results of \$30 million in profits. Let's assume that the PE ratio is still the same at 20 times. This means that the overall company value (market capitalization) is now  $\$30\text{ million} \times 20 = \$600\text{ million}$ .

- So now the share price of Takeoverco is  $\$600\text{ million}/12.5\text{ million} = \$48.00$ .
- The current value of your holding is now  $\$48.00 \times 1,000 = \$48,000$ . This is 4 percent below your entry price of \$50.00.
- The percentage ownership stake you have in the company is now  $1,000/12,500,000 = 0.008$  percent, which is 25 percent less than you had before.

This isn't great news so far. Your percentage ownership in the company has been reduced, as has the value of your shares, even though the company's market value has increased. So, let's look at earnings per share:

Post-merger earnings are \$30 million, and we divide this by the number of new shares outstanding (12.5 million):

$$\text{EPS} = \$30\text{ million}/12.5\text{ million} = \$2.40$$

When you originally bought the shares, you bought them with an EPS of \$2.50. Even though the company is now making more profits overall, the company has actually decreased shareholder value because in making that extra \$5 million profit, it has diluted existing shareholders by a greater degree; therefore, EPS has declined.

*The next few paragraphs outline the full implications of a rights issue. If you want to skip it, proceed to the section titled, "Key Financial Terms."*

We didn't include the fact that in a rights issue, the stockholder would either be able to pay for new shares at the discounted rate of \$40.00 per share or would have received a payment instead.

Even if you did take up your rights, this would have been the scenario:

You owned 0.01 percent of the company's shares, thereby entitling you to rights over 0.01 percent of the new shares:

$$0.01\% \times 2,500,000 = 250$$

You can buy 250 new shares at \$40.00, so you would spend another \$10,000 on top of the original \$50,000.

Your average cost of entry is now:  $\$60,000/1,250 = \$48.00$ .

Your shares are worth \$48.00 each now. So you have made no loss, although the EPS is lower. Remember, they are worth \$48.00 because the company value in the market is \$600 million, and there are 12.5 million shares post merger.

If you'd taken cash instead of taking up your rights then, provided that the share price on the share issue date is greater than the issue price (\$40.00), you'd receive a cash payment. The cash payment is based on the following calculation:

$(\text{Issue date share price} - \text{Issue price}) \times (\text{Number of shares you own at the record date})$

So, if the share price on the issue date is at or below \$40.00, you'll receive no payment at all, and you'd suffer from the dilution effect as outlined previously.

Let's assume the markets have been a little unsteady and the share price has fallen to, say, only \$42.00 on the issue date, then you would receive the following:

- **Calculation to evaluate the ex-rights price:**

Remember, this is a 1 for 4 rights issue.

$$\frac{(\text{Issue date share price} \times \text{No. of shares you already own}) + (\text{Issue price} \times \text{No. of new shares})}{\text{Combined no. of shares}} = \text{Ex rights price of share}$$

$$\frac{(\$42.00 \times 4) + (\$40.00 \times 1)}{5} = \$41.60$$

- **Calculation to evaluate the value per right that you own:**

$$\$42.00 - \$41.60 = \$0.40$$

- **Calculation to evaluate the expected payment for not taking up your rights in the rights issue:**

$$\$0.40 \times 1,000 \text{ (shares you owned originally)} = \$400$$

So if you didn't take up your rights and the share price on issue date was \$42.00, you would receive a check for \$400. Hardly enough to compensate for the loss in shareholder value you are suffering in this scenario where the share price has fallen.

This example is a little extreme and is included to demonstrate the significance of Earnings per Share, as opposed to straight earnings. You must be aware of how companies can raise their money for acquisitions so that you can fairly assess whether they are going to enhance shareholder value. When assessing the growth of a company, you must look at the growth in EPS.

## Key Financial Terms

Term	Description and definition	Comments and significance
<b>Balance sheet</b>	The statement of the company's assets and liabilities at a given "snapshot" in time. It is prepared with the income statement and cash flow statement.	This is the part of the company's quarterly, half yearly, and annual results that shows you the company's health in terms of assets and liabilities. The company may have increased profits, but has it achieved this by increasing its financial leverage (that is, more borrowings), and are these borrowings at a healthy level?
<b>Cash flow</b>	This is net earnings before depreciation, amortization, and noncash charges. Cash flow is calculated by adding depreciation to net earnings and subtracting preference share dividends. Cash flow is one of the ultimate ways of determining the health of a company.	A profitable company can still go bust. Why? Because it isn't generating enough cash. Young companies often have negative cash flows. Just look at a selection of Internet companies for examples. Many of these companies aren't even profitable and will never be, let alone have the capability to generate cash.  Remember that a company needs cash to pay its bills. If it cannot pay its bills, it will go bust. Cash flow is an extremely important figure, but as with all of these figures, don't just look at it in isolation.  You need to check it with some of the other figures. For example, a new start-up with negative cash flow might look very unhealthy on the surface. But you might find that it has millions tucked away in cash and cash equivalents. Many of the Internet start-ups survived in this way up until now, even in spite of their weak business models. It was only a matter of time for many of them.

Term	Description and definition	Comments and significance
<b>Statement of cash flows</b>	Shows the cash position of the company.	Remember we distinguished between profitability and liquidity. Cash flow is influenced not only by revenues and expenses, but also by the company's operating, investment, and financing decisions.
<b>Current assets</b>	These are assets that can be easily converted to cash within 12 months. Current assets include cash, marketable securities, debtors (accounts receivable), and inventory (stocks, UK translation).	Current assets are another measure of the immediate health of a company. A healthy sign is when current assets exceed current liabilities because this demonstrates the company's capability to pay its bills.
<b>Current liabilities</b>	These are obligations that must be paid by the company within 12 months. These include short-term creditors (accounts payable), short-term debt, principal, and interest on long-term debt.	
<b>Deferred taxes</b>	Deferred taxes arise when a company makes provision for future (deferred) tax liabilities. Such provision is necessary because of timing differences between accounting profits and taxable profits. An example of a timing difference includes losses carried forward, in which case these would be stated as a deferred tax asset.	
<b>Depreciation</b>	An accounting term and noncash charge imposed on companies to reflect the reduction in value of their fixed assets (that is, properties, computer equipment, plant, and machinery) in a designated fashion.	Depreciation is purely an accounting phenomenon. Assets are depreciated every year according to the depreciation policy of the individual company. The problem is that depreciation is subtracted from profits, so a company that relies heavily on investment into fixed assets (with the exception of real estate assets, which may be reassessed to market value) can suffer diminution of profits because of high depreciation charges. This is why it is important to look at the cash flow.

Term	Description and definition	Comments and significance
<b>Dividends</b>	The cash payment made by the company per ordinary share periodically during the year. In the UK, this is often twice per annum, and in the U.S., it is each quarter.	Dividends constitute the element of profit that the company does not reinvest back into itself. Dividends can be considered a reward to the ordinary shareholders for the risk they take in holding common stock. Shareholders pay income tax with respect to their dividend income.
<b>Earnings per share (EPS)</b>	Total earnings divided by the number of outstanding common shares (issued ordinary share capital).	As mentioned earlier, from a shareholder's perspective, this is more important than the overall earnings figure.
<b>EBITDA (or operating cash flow)</b>	Earnings before interest, taxes, depreciation, and amortization.	EBITDA is calculated by subtracting cost of sales and operating expenses from revenues. It can be a useful indicator in highlighting cash flow for companies with large investment projects where depreciation and amortization have dented the earnings figures.
<b>Free cash flow</b>	This is cash not required for operations or for reinvestment. Free cash flow is calculated by subtracting capital expenditure (capex) from cash flow. Capex includes investment in new plant and machinery, property, and equipment.	Free cash flow can be used to pay dividends, pay off debt, or buy back stock. In some cases, it can be used for a takeover war chest, although many fund managers have misgivings over this and would rather that free cash flow be utilized for dividends or stock repurchases.
<b>Income statement (profit and loss account)</b>	This is the company's earnings or profits statement within its quarterly, half yearly, and annual reports.	This is the earnings report analysts and investors pay most attention to when evaluating the attractiveness of the stock.
<b>Interest cover</b>	Measures the company's capability to pay its interest charges on its debt. Calculated by dividing net earnings before interest and taxes by the interest expense on all long-term debt.	Look for high interest cover because this demonstrates that the company can easily cover its interest payments. Failure to pay its debt-interest obligations can result in the company's creditors calling in their loans and winding up the company.

Term	Description and definition	Comments and significance
<b>Inventory (stocks, UK translation)</b>	The value of the company's raw materials, work in progress, and finished goods.	Inventory cannot be judged in isolation. You need to compare current figures with those of the past to see whether any trends form. High inventory can suggest that goods are not being sold fast enough. Low inventory can either indicate faster sales growth or production difficulties.
<b>Long-term liabilities</b>	Debt that is expected to be repaid after 12 months from the last balance sheet date.	Long-term debt can include simple bank debt, mortgages, or bonds.
<b>Market capitalization (market value)</b>	The value of the company, as determined by the market at any given moment in time. This fluctuates with the price of the stock.	Market cap is calculated as follows: No. of shares × Share price.
<b>Minority interest</b>	The part of a subsidiary company's shareholders' funds that is not owned by the parent company. This is usually shown as a separate item on the consolidated balance sheet.	
<b>Net earnings (net profit)</b>	The company's revenues less all expenses including depreciation, taxes, and amortization.	“Earnings” is principally an accounting figure because of the noncash inclusions within its calculation. This is why we also rely on EBITDA.
<b>Net EPS</b>	Net earnings divided by the number of shares of common stock. The number of shares is adjusted to reflect the conversion into equity of all securities that potentially can be converted, hence diluting the shareholding.	Net EPS increases the number of shares to reflect the possibility of share dilution (described earlier) as contained within the company's capital structure. Therefore, all employee company stock options are assumed to be fully converted into equity, as are any convertible loans, bonds, and so on.

Term	Description and definition	Comments and significance
<b>Ordinary shares/common stock</b>	<p>These are the shares that make up the market value of the company. These shares typically have equal voting rights and are the main source of equity finance for corporations. These are the shares that you see traded on the NYSE, Nasdaq, or LSE.</p> <p>Some companies pay a dividend with respect to each ordinary share.</p>	<p>The number of ordinary shares multiplied by the value per share equals the market capitalization of the company.</p> <p>Ordinary shareholders are at the bottom of the pecking order if the company folds. Ordinary shares carry with them more risk, but also more potential reward.</p>
<b>Preference shares</b>	<p>These shares are issued by corporations for cash and have preferential rights over ordinary shares. This means that in the event of the company liquidating, the preference shareholders will be in front of ordinary shareholders in the pecking order.</p>	<p>Preference shares are redeemable by the company at par either at the holder's or company's option. The company issues them and pays a fixed rate of return on them until redemption. The return is lower than for ordinary shareholders, as is the risk. Preference shares act far more like bonds or debt instruments and as such many people believe they should be considered as debt, not equity.</p>
<b>Revenues (turnover)</b>	<p>Includes all net sales and turnover of the company, which form part of the main operations of the company.</p>	<p>Revenues do not include dividends paid to the company, interest payments due to the company, or any nonoperating income.</p>
<b>Share price</b>	<p>The value of each individual share of a company, as determined by the market at any given moment in time.</p>	
<b>Share split</b>	<p>This is when a company decides to increase the number of shares to enhance the liquidity of the shares for its investors.</p> <p>The net effect is that investors end up with more shares, although the share price is obviously revalued downward to take this into account. All in all, the net effect is theoretically zero difference, but the market generally takes a positive view on stock splits, and often the shares increase in value prior to the actual split date.</p>	<p>Typically, share splits are a sign of confidence by the company. A share split is often interpreted as reward for investors, and in a bull market, it is commonplace to see the shares rise in price from the date of the announcement up to the point of the split itself.</p>

Term	Description and definition	Comments and significance
<b>Shareholders' equity (shareholders' funds)</b>	This is the balanced figure on the balance sheet, signifying the book value of the company for the ordinary shareholders (common stock holders).	Used in calculating the gearing ratio, this is the same as the figure for net assets.
<b>Net assets</b>	This is the company's total assets less its total liabilities, also known as book value.	This figure should be positive. Shareholders' equity represents the shareholders' ownership of the company in terms of its book value.
<b>Shares outstanding (issued share capital)</b>	These are the shares that are currently owned by investors.	A company can have more shares than those that are already owned, and these form part of the company's authorized share capital. Only issued shares (outstanding shares) form part of the company's market value, and it is only the outstanding shares that we use in calculating the key financial ratios.
<b>Total assets</b>	Total assets include all short-term (current) assets (that is, cash, debtors, and readily convertible securities) and fixed assets (property, plant and machinery, and investments).	Needs to be compared against itself over previous years and against liabilities for a meaningful insight to be made.
<b>Total liabilities</b>	Include all short-term (current) liabilities (short-term creditors, overdrafts) and long-term debt and deferred taxes.	Needs to be compared against itself over previous years and against assets for a meaningful insight to be made.
<b>Total return</b>	The stock price change plus dividends over a period of time.	Obviously we want this to be high. We would compare this figure against the market and against the stock's past performance.

## Key Financial Figures and Ratios

Let's take a look at some important fundamental figures for analyzing a company.

Figure	Calculation	Comments and Significance
<b>Beta</b>	<p>Beta measures the relationship of a stock's returns relative to the market in general (S&amp;P 500 in the U.S.). With a beta of 1, anything at a beta of 1 indicates that the stock will move in the same direction as the market and at the same rate. If a stock has a beta of 1.2, it will move in the same direction as the market but where the market moves by, say 10%, the stock will move by 12% (10% plus another 2%) in the same direction.</p> <p>If a stock has a negative beta, this means that it moves in the opposite direction to the market. -1 indicates that the stock will move at the same speed as the market but in the opposite direction.</p>	<p>If you want to trade the market as it goes up and down, then beta is a useful figure for you.</p> <p>If the market is rising, pick top-quality stocks with a high positive beta.</p> <p>If the market is falling, you can sell short the worst stocks with a high beta.</p> <p>Beta is a useful addition to any search criteria once you are comfortable with the prevailing direction of the market.</p>
<b>Current ratio</b>	$\frac{\text{Current Assets}}{\text{Creditors Due Within 12 Months}}$	The current ratio is a measure of the company's liquidity and its ability to pay its immediate debts. Again, you want this figure to be high. A figure below 1 would indicate that the company doesn't have the liquid funds to pay its obligations. Look for some safety margin in this area.
<b>Debt ratio</b>	Total debt / Total assets	An important figure that indicates the percentage of a company's assets that are funded by debt.
<b>Dividend cover</b>	$\frac{\text{Earnings per Share}}{\text{Net Dividend per Share}}$	As with interest cover, if you're interested in dividends, then look for companies with sufficient dividend cover, to ensure that the dividends continue. There is often a trade-off between dividend yield and dividend cover. Obviously when there is high dividend cover (and therefore a safer dividend), the dividend yield might be lower because the PE ratio (hence, share price) might be higher, thus lowering the dividend yield.

Figure	Calculation	Comments and Significance
<b>Dividend yield</b>	$\frac{\text{Dividend per Share}}{\text{Price per Share}}$	Many U.S. stocks pay low or no dividends. In the UK, many investors hold stocks purely for the dividends. Look for consistency in the company's dividend policy and for dividends to rise steadily over time. Companies with wildly fluctuating (up and down) dividends year after year are those that suggest poor management.
<b>Earnings per share (EPS)</b>	$\frac{\text{Net Earnings}}{\text{Number of Ordinary Shares}}$	
<b>Forward EPS</b>	This is the average estimate of EPS growth for the indicated period, as derived from all polled estimates from Wall Street or city analysts.	The thing to watch out for here is if actual results exceed beyond or lag behind analysts' expectations. Look for companies that consistently exceed analysts' expectations.
<b>Financial gearing or leverage</b>	(Interest Bearing Loans + Preference Shares/Ordinary Shareholders' Funds)  Interest-bearing loans will include all long- and short-term debt obligations including bonds, notes payable, mortgages, and lease obligations.  "Ordinary shareholders" funds' effectively shows the funds provided to the company by its common stockholders. The Shareholders' Funds figure comes from the balance sheet. This figure incorporates common equity, long-term debt, deferred taxes, and minority interests.  The ratio indicates how much financial leverage or gearing the company has.	This is a juggling act for the company. Generally you don't want it gearing too high, and it does depend on the sector and type of business the company operates within. Sectors differ as to commonly acceptable gearing ratios. Beware of companies whose gearing is significantly higher than their competitors. High gearing generally means higher risk because if the company defaults on a loan, it could spell disaster if the creditor calls it in.
<b>Forward P/E</b>	$\frac{\text{Latest Closing Price of the Stock}}{\text{Latest EPS Estimates as Derived from all Polled Estimates from Wall Street or City Analysts}}$	This is based on a prediction of earnings.

Figure	Calculation	Comments and Significance
<b>Interest cover</b>	$\frac{\text{Profit Before Interest and Taxes}}{\text{Interest Payable}}$	Highlights the company's ability to pay its interest obligations. The higher the figure, the safer the company is. I would look for at least three times interest cover.
<b>Net assets per share (book value per share)</b>	$\frac{\text{Ordinary Shareholders Funds}}{\text{Number of Ordinary Outstanding Shares}}$	Shows the book value per share. If the share price is lower than the book value per share, either the stock is a complete dud, or it is undervalued.
<b>Payout ratio</b>	$\frac{\text{Dividend EPS}}{\text{EPS}}$	The payout ratio is a useful way of looking at how much a company reinvests in itself. High-growth companies tend not to pay dividends because they are constantly reinvesting for future growth. Mature companies, such as Phillip Morris, pay a dividend, but you need to make sure that they also reinvest adequately. Property companies and REITs (Real Estate Investment Trusts in the U.S.) tend to pay higher dividends than most; REITs are compelled to pay out a high percentage of their net revenues as dividends or face punitive tax measures.
<b>PEG ratio</b>	$\frac{\text{Forward PE}}{\text{Projected EPS Growth Rate}}$	A popular ratio made famous by the Beardstown Ladies Investment Club. The PEG ratio is often used to spot undervalued or overvalued stocks. If a company has high growth prospects but a PEG ratio of less than 1, then this company can be thought of as being undervalued. A PEG ratio of less than 1 means that the forward multiplier (PE ratio) is less than the projected growth of the company. Many investors look for PEGs of less than 1 in the search for undervalued or good value stocks.

Figure	Calculation	Comments and Significance
Price/book value	$\frac{\text{Stock's Latest Closing Price}}{\text{Book Value per Share}}$	If a stock price is less than the book value per share, the stock is described as being at a "discount to net asset value." Either this can mean that the company is undervalued (because the company could be liquidated for more than its market capitalization), or it can mean that the company is in really bad shape, hence its poor rating and stock price.
Price/cash flow	$\frac{\text{Stock's Latest Closing Price}}{\text{Cash Flow per Share for Latest Year's Results}}$	All figures incorporating elements of cash flow are useful for investors. Look to see that the company generates cash consistently over time. If there is a sudden change, check the news to see if the company has a major investment drive going on or some changes in its investment strategy that may have affected its cash flow.
Price/sales	$\frac{\text{Stock's Latest Closing Price}}{\text{Revenue per Share}}$	Useful for cross-comparing companies that have made earnings with those that haven't.
Price earnings (P/E) ratio	$\frac{\text{Stock Price}}{\text{Earnings per Share}}$  The same end figure can be reached by the following calculation:  $\frac{\text{Market Capitalization}}{\text{Net Earnings}}$	Signifying the market's rating of the company, the PE ratio is a multiplier of the company's earnings to evaluate its value in the marketplace. As with all these figures and ratios, you shouldn't look at the PE ratio in isolation. Instead, compare it with past price data on the stock and with the stock's competitors within its industry sector. A low PE ratio signifies a low rating by the market; this can either mean the stock is fundamentally weak or that it is undervalued. A high PE ratio can either mean the company is fundamentally strong or that the company is overvalued. To assess the reality, analysts look at other facts, figures, and ratios.

Figure	Calculation	Comments and Significance
<b>Quick ratio (liquid ratio)</b>	$\frac{\text{Current Assets-Inventory}}{\text{Creditors Due Within 12 Months}}$	A more examining test of a company's liquidity, the quick ratio facilitates easier comparison between companies because they might take on different valuation approaches for inventories.
<b>Return on assets (ROA)</b>	$\frac{\text{Latest Full Year's Net Income}}{\text{Total Assets}}$	The percentage rate of return on all the company's assets.
<b>(Return on capital employed (ROCE))</b>		Unlike ROE (return on equity), ROA does not net off the company's liabilities and is a measure of how effectively a company invests its money.
<b>Return on equity (ROE)</b>	$\frac{\text{Latest Full Year's Net Income}}{\text{Shareholders Funds (Equity)}}$	ROE is a measure of how effectively a company uses its investors' money.
<b>Five-year EPS growth rate</b>	The five-year annualized growth rate of earnings per share.	Good for measuring EPS growth over a period of time. This figure takes into account management's track record of adding to shareholder value and, as such, is a useful pointer to the future. Use in conjunction with five-year sales growth to ensure that the growth in EPS is attributable to increasing revenues, and not simply management using corporate and accounting policies and financing techniques to bolster EPS. Such techniques may be totally legitimate and useful, but a company's long-term performance will be partially based on its ability to produce quality products and services of which it can continue to sell more.
		An example of a method used to enhance shareholder value includes share buybacks where the company buys back some of the shares, which reduces the float and therefore increases EPS because there are fewer shares now to divide into the earnings figure.

Figure	Calculation	Comments and Significance
<b>Five-year EPS growth rate (continued)</b>		Similarly, a company might be able to enhance EPS by cutting down its expenses and making mass redundancies. Efficiency is to be applauded, but you must ask the question: how is it improving sales revenue in the longer term?
<b>Five-year sales growth</b>	The five-year annualized growth rate of sales or revenues.	This figure demonstrates that the company has a compelling product or set of products and services that are being bought by its customers in increasing amounts. Sales growth can occur as a result of increasing sales units or increased unit prices. Think about the markets to which the company already sells its products and services and whether it can expand into new markets, both geographically and in terms of business sector.

## Search Criteria and Screening Filters for Fundamentals

So how can you put all this together to execute a simple-to-use filter to find good stocks to buy (or buy calls or use bullish options strategies) or bad stocks to sell short (or buy puts or use bearish options strategies)?

Well, you could do a lot worse than William O’Neil’s CAN SLIM formula for quality companies. The CAN SLIM formula also addresses some technical criteria and is considered one of the finest quality stock-picking strategies. O’Neil’s *How to Make Money in Stocks* is one of the best trading books ever written, and I have replicated the CAN SLIM formula as a filter on my website, [www.ovitradersclub.com](http://www.ovitradersclub.com).

Here are some other useful filters; you can alter the figures if the searches don’t pick up enough stocks or if they pick up too many:

<b>Criteria</b>		<b>Value</b>	<b>Comments</b>
Five-year sales growth	$\geq$	20%	Our rationale here is to find low-risk stocks that have high sales and earnings growth rates. Notice how the filter refers to EPS as opposed to earnings. This ensures that any stock dilutions are accounted for and that we are purely concentrating on shareholder value.

Five-year EPS growth  $\geq$  20%

Projected EPS growth  $\geq$  20%

Debt as a % of capital  $\leq$  33%

<b>Criteria</b>		<b>Value</b>	<b>Comments</b>
Five-year EPS growth	$\geq$	10%	Here, our aim is to pick out high market value stocks that combine safety (low gearing) with solid past growth and increasing future growth prospects. With sales of over \$6 billion p.a., we look at market leaders on a global basis, so this filter is likely to catch the worldwide industry leaders.

Projected EPS growth  $\geq$  12%

Past 12 months of sales revenue  $\geq$  \$6 billion

Market capitalization  $\geq$  \$10 billion

Debt as a % of capital  $\leq$  50%

<b>Criteria</b>		<b>Value</b>	<b>Comments</b>
Five-year EPS growth	$\geq$	10%	A slightly riskier strategy, here we look for the likely future high fliers, although we have stipulated a five-year EPS growth rate. We've made no specifications for financial gearing or for the particular size of company, so this filter might uncover some hidden gems.

Projected EPS growth  $\geq$  20%

Here, we look for undervalued stocks that haven't yet been detected by the wider market.

Criteria	Value	Comments
EPS growth	$\geq$	15% ...preferably for the last 5–7 years.
Sales growth	$\geq$	15% ...preferably for the last 5–7 years.
ROE	$\geq$	15% ...for the past 5 years.
Free cash flow		...growing every quarter for the past 5 years.*
Market capitalization		...around book value.
PE ratio	$<$	30%
Current EPS		...around 10% of current stock price.

\* We specify that Free Cash Flow has grown every quarter for the last 5 years to ensure we're targeting stocks that are growing because of continuing operations, not because of asset disposals.

Criteria	Value	Comments
		Here, you're looking for high-dividend-paying stocks.
Dividend yield	$\geq$ 4.50%	This probably means you need to look at mature companies that have been around for some time and
Dividend payout	$<$ 70%	have parts of their businesses that are "cash cows," requiring little reinvestment to sustain sales. Notice
Debt as a % of capital	$<$ 50%	that we haven't included growth in the criteria.

*Remember, you can add the beta criteria to these filters.*

## Common Sense and Being Alert

### Some Examples

- Do you ever notice that a particular retailer's trucks are prolific on the roads, suggesting that the masses are ordering goods from them?
- Have you noticed a new product in everyone's homes, such as those massive digital clocks with temperature gauges and thermometers? Who makes those? Look on the back, find out who makes them, and then find out if the company is listed on the stock market or whether it is a subsidiary of another company that is listed on the stock market.

- What toys are in vogue with your kids or a friend's kids? What are the latest crazes? Who makes those toys? Who has the marketing and distribution rights on those toys?

The common-sense approach is one endorsed by the greatest investors such as Warren Buffett and Peter Lynch. Nowadays there's no excuse for not being able to find things out. The Internet has enabled each of us to become a modern day Sherlock Holmes when it comes to tracking down information. Research isn't half the pain it was only five years ago; you can simply plug in any criteria to a search engine and sure enough, a whole collection of answers pops out in seconds.

There is no substitute for common sense, and this applies to your trading and your alertness for selecting stocks. If you have a reliable indicator that tells you that the market is going down, does it make good sense to start picking stocks to buy? Well, some would argue that a good stock is a good stock is a good stock. This is partially true, but it's still not massively smart to buy into a sector that is in the midst of tumbling—the old expression of catching a falling knife springs to mind. For our purposes, don't try to be too clever. Wait for the sector to fall, and then join in the fun. Remember, you don't want to get into predicting or forecasting. But you do want to be able to recognize which way the prevailing direction is and when it's changing. Many software products now have their own indicators that give a reasonably accurate measure of overall market direction.

Statistics show that 50 percent of a stock's movement is attributable to the overall market direction, and 30 percent of a stock's movement is attributable to its sector direction. Is it no wonder, therefore, that you greatly improve your odds of success if you can find a tool that shows you the overall market direction.

Ultimately we can all be right, even those doomsday merchants forever predicting Armageddon for all of us. However, it's timing that determines profitability in the markets. We know that one way of improving timing is to use indicators to show the prevailing direction of the markets. The other way of improving timing is to use technical analysis, the art of interpreting price charts.

## Chapter 3 Major Learning Points

In this chapter, you learned:

- The key drivers of stock prices in the marketplace, including:
  - Management's track record
  - News and results

- Market sentiment
- Market expectations
- The key economic drivers including supply and demand
- The key elements of corporate fundamentals
- The key financial terms and their significance
- The key financial ratios and their interpretations
- How to set up simple but powerful screening filters to narrow down your search for great stocks to long or short
- That common sense is vital for both your general awareness of opportunities but also for your trading itself

Remember that there is a world of difference between investing and trading.

Fundamental analysis is more relevant to *investors* because it involves taking a longer-term approach to hunting value in a company. Investors do not mind taking a longer-term approach because when they find a company they consider to be undervalued, they're happy to wait until it fulfills its price potential as reflected in the stock.

*Traders*, on the other hand, don't care about long-term values, so fundamentals are irrelevant to them. Traders are looking to take advantage of pricing patterns, short or medium term, and are much more sensitive to price swings because their time horizons are so much shorter. I would personally advocate some basic technical analysis techniques to investors and traders because there's nothing like making an investment for the right reasons but messing up the timing. You don't need to be a technical analysis guru to identify the obvious signs, so we're now going to identify them so that if you're more of an investor type, you can confidently take a glance at the charts to make sure you're not making a bad mistake.

You are now ready to explore some basic technical analysis techniques that will enable you to improve your timing into and out of the markets before choosing from a myriad of powerful yet responsible options trading strategies.

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## chapter 4

# The Basics of Technical Analysis

What is technical analysis? Essentially, it is chart reading. More specifically, it is the science (or art) of recognizing chart patterns, interpreting them to make buying and selling timing decisions, and implementing a trading plan. Technical analysis can help you not only make your decisions but make them more precisely, make them more disciplined, and help you manage your money more effectively.

**Technical analysis comes in two forms: price and volume patterns and indicators.**

Many technical analysis supporters believe that everything you need to know about a security can be seen by looking at the charts.

Technical analysis comes in two forms:

- *Price patterns*—These are simply visible patterns of what is happening to the price of the security.
- *Indicators*—These are mathematical algorithms that take all aspects of the price movement, including volume, and are put together to form all kinds of ratios and analysis by which future price movement might be guesstimated.

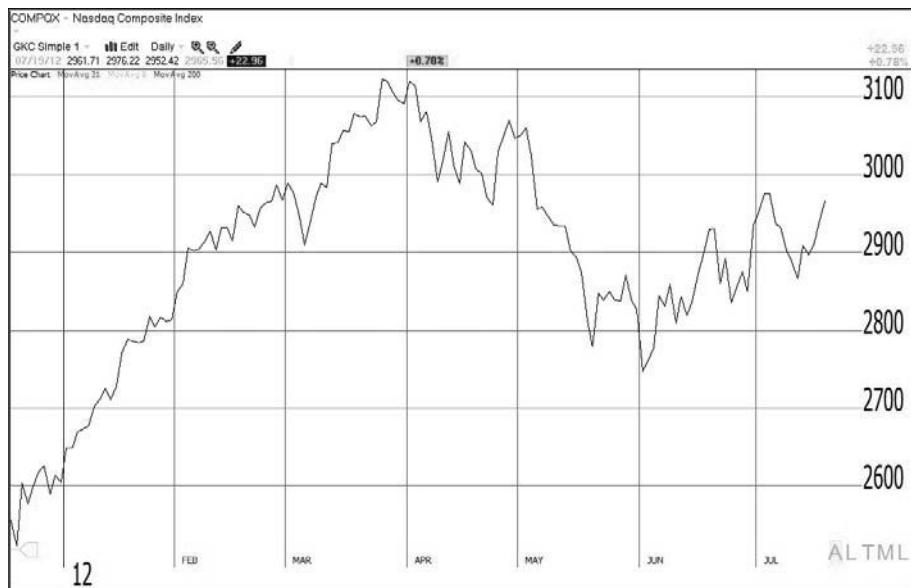


## Three Ways to View Price Patterns

Price patterns are simply the patterns of a security's price movements for a known timescale. There are three main ways of viewing price action for any period of time:

- Simple line graphs
- Bar graphs
- Japanese candlesticks

**Chart 4.1.1 ● Simple daily line chart of NASDAQ (December 2011–July 2012).**



TC2000®.com. Courtesy of Worden Brothers Inc.

In itself, this chart is fairly meaningless, although you can clearly see that the price has ranged between just under 2600 in December 2011 to over 3100 in March 2012.

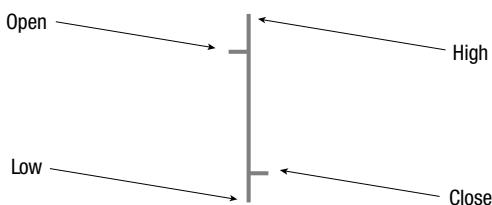
With simple line graphs, the line is charted at the average between the high and low for each period of time (here, the line crosses at the mean between the high and low for each day, given this is a daily chart).

A more useful chart would be to see the daily prices represented in such a way where you can see the high, low, open, and close for each day.

**Chart 4.1.2 ● Simple daily open bar chart of NASDAQ (December 2011–July 2012).**

TC2000®.com. Courtesy of Worden Brothers Inc.

Notice how each period (a day in this instance) is represented by a vertical bar. Also notice how each bar has a small horizontal line to the left and one to the right. These lines signify the opening and closing prices for the NASDAQ for each day. The tops and bottoms of each vertical line represent the high and low prices reached on the particular day.

**Diagram 4.1.1 ● Simple open bar.**

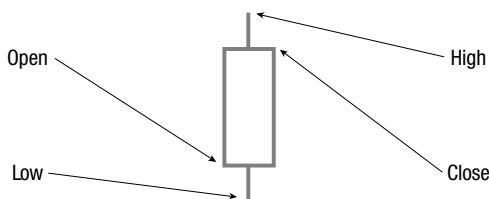
A clearer way of depicting price action for each period is by using Japanese candlesticks.

**Chart 4.1.3 ● Japanese candlesticks chart of NASDAQ (December 2011–July 2012).**



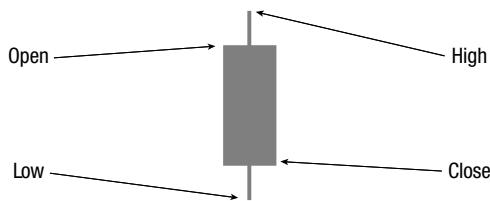
TC2000®..com. Courtesy of Worden Brothers Inc.

**Diagram 4.1.2 ● Up candlestick.**



Here's how Japanese candlesticks work:

- The up candlestick has a hollow body.
- The body represents the opening and the closing price of that period.
- With an up candlestick, the closing price will be higher than the opening price.

**Diagram 4.1.3 ● Down candlestick.**

- The down candlestick has a filled body.
- The body represents the opening and the closing price of that period.
- With a down candlestick, the closing price will be lower than the opening price.

Where the candlesticks are in color you can interpret the hollow and filled bars as follows:

- The greater than symbol (>) means “higher than.”
- The less than symbol (<) means “lower than.”

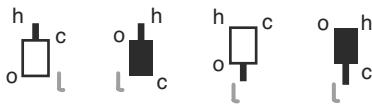
<b>Close vs open</b>	<b>Close vs previous day's close</b>	<b>Candlestick appearance</b>
Close > Open	Close > Previous Close	Green + Hollow
Close < Open	Close > Previous Close	Green + Filled
Close > Open	Close < Previous Close	Red + Hollow
Close < Open	Close < Previous Close	Red + Filled

## Specific Candlesticks

Individual candlestick bars have their own patterns, a couple of which are especially relevant.

The candlestick is comprised of a body and a shadow or tail. The body contains the information about the open and close of the bar. The extremes of the entire bar represent the high and the low of that bar's range.

Where the extreme of the day is exactly at the open or the close, there will not be shadow for a particular candlestick (see Diagram 4.1.4).

**Diagram 4.1.4 ● Extreme candlesticks.**

A Doji bar is where the open and the close are in close proximity (see Diagram 4.1.5).

**Diagram 4.1.5 ● Extreme candlesticks.**

A Doji is considered to represent uncertainty in the market. In turn, this can precede a significant change in market direction.

Although the size and character of the doji can vary, my basic definition for it as a potential reversal bar is if the distance between the open and the close are within 20 percent of the range of the bar. If the range of the bar is say \$4.00, then provided the open and close are within \$0.80 of each other, I view it as a potential Doji.

The closer the open and close are, particularly in the context of a longish high-low range, the better the chances of a meaningful reversal.

The Hammer bar is a close relative of the Doji (see Diagram 4.1.6). The Hammer is where the open and close are relatively close together and positioned at one end of the candlestick.

**Diagram 4.1.6 ● Hammer bar candlesticks.**

In the context of an extreme in price being formed, Dojis and hammers can be strong reversal signals. But price bars tend to be more relevant when they're viewed in the context of other price bars. The collection of bars can then start to resemble recognizable chart patterns.

For example, if a hammer bar breaks a support or resistance level, that breakout might turn out to be short-lived.

There are two basic types of price movement: continuation, where the security looks likely to continue its prevailing trend, and reversal, where the move is coming to an end.

Our main focus is on continuation patterns, but in Chapter 11, “Putting It All Together—A Call to Action,” I show you a powerful yet simple reversal pattern that uses the Doji bar.

## Support and Resistance

Most traders and investors use support and resistance. At its most basic, it is the simplest of patterns to understand and the easiest to identify just by glancing at the charts.

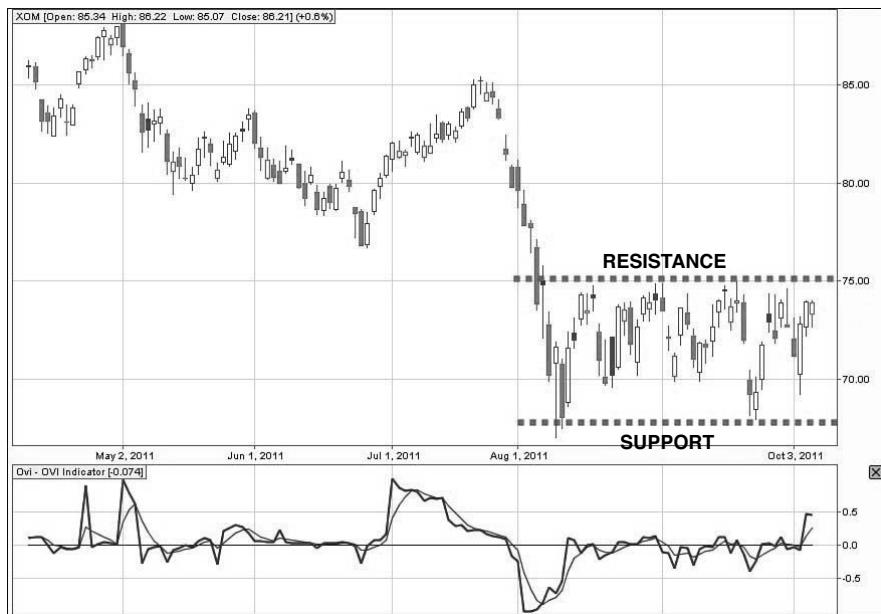
- Support is where the price finds a base (floor) from which it bounces upward.
- Resistance is where the price finds a ceiling from which it bounces downward.

Where clear lines of support and resistance have been formed by previous lows and highs, the psychology of these levels comes into play. Traders may become wary around the resistance level and sell, while becoming more enthusiastic when the stock hits support. If the stock breaks through these levels, then other tactics come into play.

No one knows for sure when support or resistance is going to hold or be breached, and we don’t want to get into forecasting anyway. The best way to trade support and resistance is to set conditional orders if they are broken in the context of a continuation, where the trend is continuing.

Often, when support and resistance lines are broken, they then form the opposite of what they were before—that is, old support becomes new resistance and old resistance becomes new support. See Chart 4.1.4 for an illustration of this.

**Chart 4.1.4 ● Support and resistance (XOM August–October 2011).**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

**Chart 4.1.5 ● Resistance broken (XOM August–October 2011).**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

## False Breakouts

Technical analysis is not an exact science. In practical terms, this means don't get too hooked up on precision. You'll notice from the previous charts that the support and resistance lines are those that are best fitting the areas of support and resistance, and we're not talking about perfection here.

A false breakout occurs when one of the follow happens:

- A bottom is broken and then springs back up.
- A top is broken and then falls back down.

Different stocks have different "personalities" and may make false breakouts in distinct ways. As you become familiar with a few stocks, you'll become accustomed to spotting how they act, and you can then adjust your strategy appropriately.

False breakouts can occur when specialists and market makers identify extraordinary levels of interest around a support or resistance area and deliberately drive the price beyond that area to secure an advantageous position. For example, a stock is falling down to a known support level where there are lots of sell stop orders. Seeing this, the specialists work the price lower so that those stops are triggered. In the mayhem of all this automated selling action, the specialists are busy buying as much as they can, soon driving the stock price upward and securing a tidy profit for themselves. Here, support was broken, but only temporarily. This type of scenario often occurs for a crazy 30-minute time window of increased volume before normal service is resumed.

Support and resistance lines do not always have to be drawn at the extreme of the price bar tails. We're looking for a zone of support or resistance, and sometimes this might include an outlier bar. The reason for us looking for the "zone" is because we're looking to identify where the majority of trades happen. Often that won't necessarily be at the extreme outlier of one single outlier bar.

## Double and Triple Tops and Bottoms

Multiple tops and bottoms are popular chart patterns, but my main focus is on continuation patterns like flags, breaks of support, and resistance.

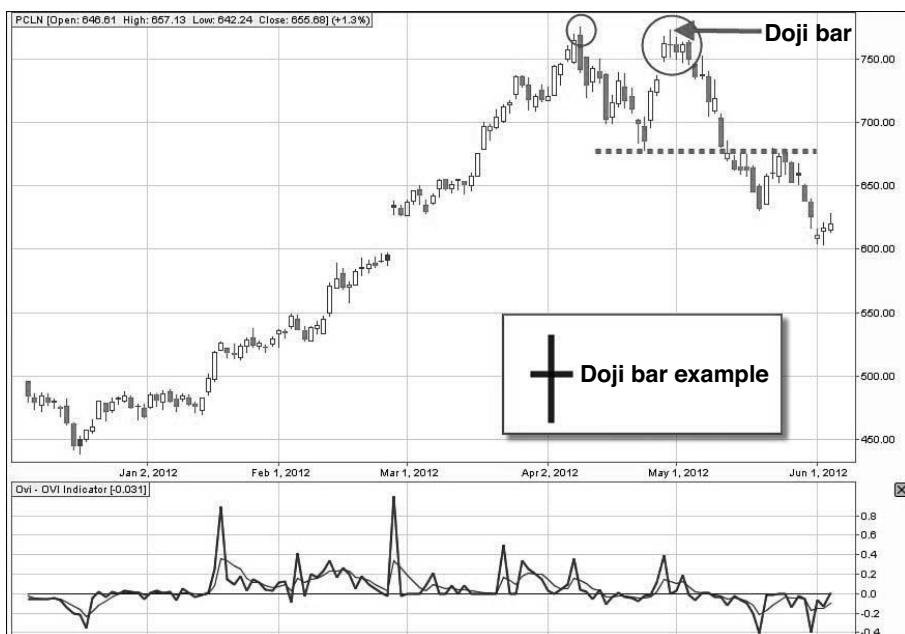
### Double Tops and Triple Tops

A double top is when a high is reached twice before dropping down. In logical terms, the chart tells us that the (stock) price did not have the strength to rise

through a previous high. This is interpreted as weakness, and imminent decline in the price is likely.

Here's a chart of PCLN, which is forming a double top. Notice the Doji bar, which is where the open and close are virtually at the same level. This is often a sign of indecision and an imminent reversal. The fact that this Doji bar also occurred as a double top was forming made this an obvious reversal candidate:

**Chart 4.2.1 ● Double top for PCLN (April–May 2012).**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

- Notice how the second peak is just slightly lower than the first peak—this is a sign of price weakness to follow.

Here's a chart of GLD. In September 2011, it forms a double top, but in this case the second peak is slightly higher than the first. However, the second peak has a lower close than the first peak, and the Gold ETF gaps down severely the next day.

**Chart 4.2.2 ● Double top for GLD (August–September 2011).**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

Multiple tops and bottoms can be useful in determining the end of a trend.

## What Is a Trend?

- An *uptrend* can be defined as a series of higher lows, often in conjunction with (although not required) higher highs.
- A *downtrend* can be defined as a sequence of lower highs, often in conjunction with (although not required) lower lows.

Prices generally follow a trend (up or down), or they move sideways. In the next chart, the price trends up strongly until April 2012.

You'll notice that in between those peaks is a dip that bottoms at the solid horizontal line. Once this bottom has been breached downward after the second top, the price continues to fall by over \$70 (about 10 percent) in a single month.

You'll also notice that the double top occurs at the end of a significant trend that on this chart can be traced from the beginning of the sequence back in December 2011.

**Chart 4.2.3 ● Double top and trend break and reversal for PCLN (April–May 2012).**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

## The Rule for Double Tops

So, now we have three criteria fulfilled:

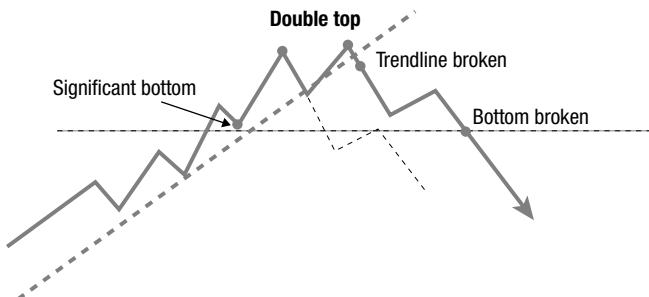
- (a) A double top
- (b) An uptrend broken and reversal to the downside (mid-May)
- (c) The last significant bottom breached to the downside (mid-May)

You can do one of the following:

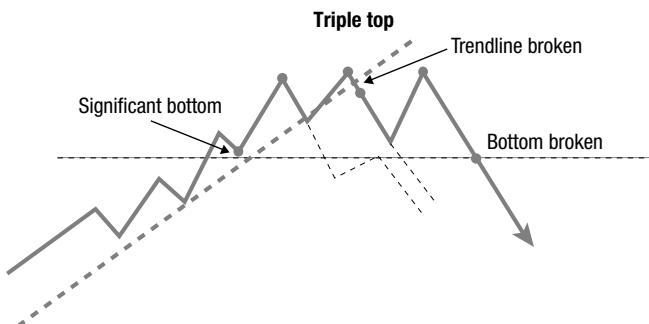
- Exit your long position when the trendline is broken.
- Exit your long position when the bottom is breached.

Recap:

**Diagram 4.2.1** ● Double top with trend break and reversal.



**Diagram 4.2.2** ● Triple top with trend break and reversal.



The rule for triple tops is the same as for double tops. Look for one of the following:

- (a) A triple top
- (b) An up-trend broken and reversal to the downside (usually after the second top)
- (c) The last significant bottom breached to the downside

You can do one of the following:

- Exit your long position when the trendline is broken.
- Exit your long position when the bottom is breached and enter into a short position.

**Double tops and triple tops summary**

**What the patterns mean.** • Weakness in the stock if it breaks down through the trendline after the second or third top.

**What to do.** • Sell all holdings on breakdown through trendline.  
• Consider buying puts and/or selling the stock short.

**How to identify the pattern.** • Two or three peaks (tops).  
• Broken upward trendline.  
• Reversal breaking down through latest significant bottom.

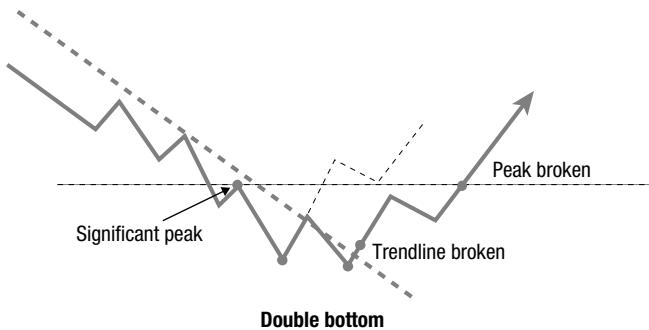
**What is the cause?** • Lack of conviction in stock price appreciating beyond previous high.

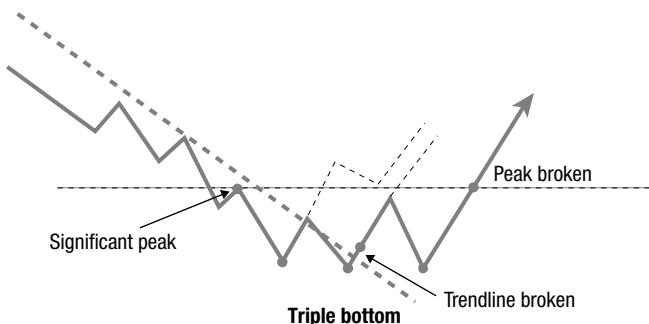
**Double Bottoms and Triple Bottoms**

These work in the opposite way as double tops and triple tops.

In logical terms, the chart tells us that the (stock) price wasn't weak enough to fall through a previous low. Furthermore, it has the strength to break upward through the previous peak. This is interpreted as strength, and imminent price appreciation is likely.

**Diagram 4.2.3 ● Double bottom with trend break and reversal.**



**Diagram 4.2.4 ● Triple bottom with trend break and reversal.**

## The Rule for Double Bottoms

- (a) A double bottom
- (b) A downtrend broken and reversal to the upside
- (c) The last significant peak breached to the upside

You can do either of the following:

- Enter your long position when the trendline is broken.
- Enter your long position when the peak is breached.

The rule for triple bottoms is the same as for double bottoms. Look for one of the following:

- (a) A triple bottom
- (b) A downtrend broken and reversal to the upside (usually after the second bottom)
- (c) The last significant peak breached to the upside.

You can do either of the following:

- Enter your long position when the trendline is broken.
- Enter your long position when the peak is breached.

---

**Double bottoms and triple bottoms summary**


---

**What the patterns mean.** • Strength in the stock if it continues up through the trendline after the second or third top.

---

**What to do.** • Consider entering into a bullish position by buying the stock or calls.

---

**How to identify the pattern.** • Two or three bottoms.  
• Broken downward trendline.  
• Reversal breaking up through latest significant peak.

---

**What is the cause?** • Conviction in stock price appreciating beyond previous highs.

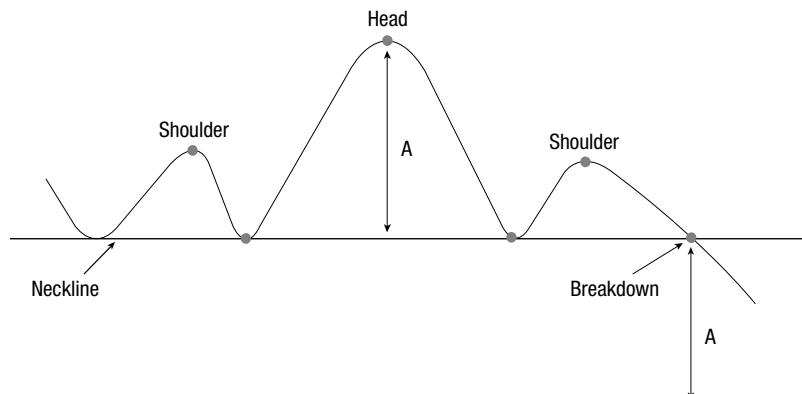
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## Time Tip

*The longer the time period, the stronger the pattern becomes. A two-month double top (or double bottom) is a more powerful indicator than a ten-minute double top (or double bottom).*

## Head and Shoulders

**Diagram 4.3.1 ● Head and shoulders.**



A head and shoulders pattern occurs when a peak (head) is sandwiched between two lower peaks (shoulders). In logical terms, the chart is telling us that the (stock) price did not have the strength to rise through either preceding highs. This is interpreted as weakness, and imminent decline in the price is likely at

least the amount of distance (A) between the neckline and the middle (head) high.

### Head and shoulders summary

- |                                     |                                                                                                                                              |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>What the pattern means.</b>      | • Possible weakness in the stock if it breaks the support line (neckline).                                                                   |
| <b>What to do.</b>                  | • Sell all holdings on breakdown and consider buying puts and/or selling the stock short.                                                    |
| <b>How to identify the pattern.</b> | • From the neckline, a pattern develops as shown here.<br>• First shoulder, head, second shoulder, followed by breakdown below the neckline. |
| <b>What is the cause?</b>           | • A breakdown below the support line (neckline) of the stock.<br>• One of the most reliable of the major reversal patterns.                  |

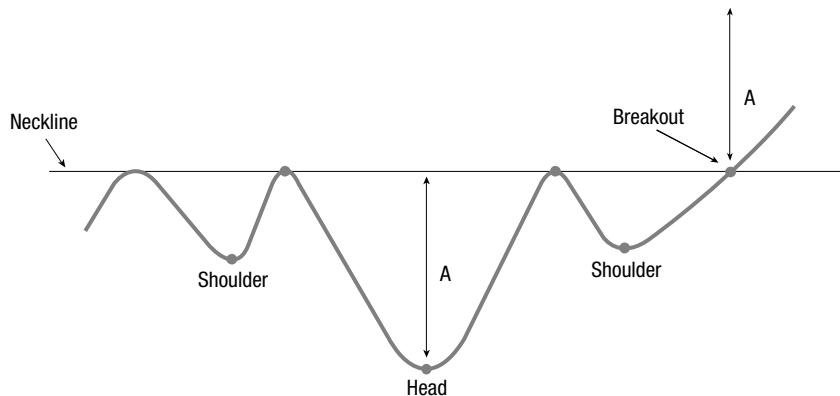
**Chart 4.3.1 ● Head and shoulders for GS (February–May 2012).**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

## Reverse Head and Shoulders

**Diagram 4.3.2 ● Reverse head and shoulders.**



A reverse head and shoulders pattern occurs when a bottom (reverse head) is sandwiched between two higher bottoms (reverse shoulders). In logical terms, the chart tells us that the (stock) price has the strength to rise through either preceding lows. This is interpreted as strength, and imminent appreciation in the price is likely by at least the amount of distance (A) between the neckline and the middle (reverse head) high.

**Chart 4.3.2 ● Reverse head and shoulders for PCLN (November 2011–January 2012).**

Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

The next chart reveals the full extent of the next upward move, which is over \$250, dwarfing the (A) move of \$60.

**Chart 4.3.3 ● Reverse head and shoulders upward resolution for PCLN (December 2011–January 2012).**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

### Reverse head and shoulders summary

- What the pattern means.** • Possible strength in the stock if it breaks up through the resistance line (neckline).

- What to do.** • Consider entering into a bullish position by buying the stock or calls.

- How to identify the pattern.** • From the neckline a pattern develops as shown here.  
• First reverse shoulder, head, second shoulder, followed by breakout above the neckline.

- What is the cause?** • A breakout above the support line (neckline) of the stock.  
• One of the most reliable of the major reversal patterns.

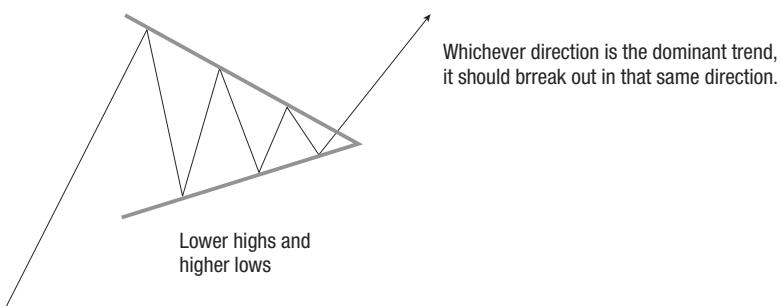
## Consolidation Patterns

Consolidations occur where the individual price spreads are tight on each bar or candlestick, indicating that buyers and sellers are matching each other closely. This in itself is a sign of lower volatility, which in turn has a direct impact on options prices. This can lead to useful options strategies that take advantage of low or high volatility and distorted options premiums. More about options strategies later. For now, let's take a look at these price patterns. I typically don't distinguish between pennants, triangles, and flags because I trade them all in the same way (on the breakout), but I will outline them separately here.

### Pennants and Triangles

You can recognize a pennant by the fact that it has lower highs and higher lows. These converge and are a sure sign of decreasing volatility.

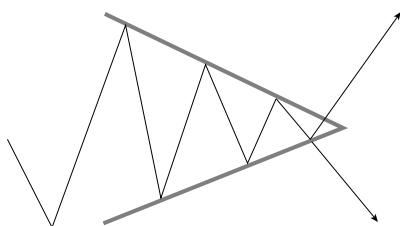
**Diagram 4.4.1 ● Pennant.**



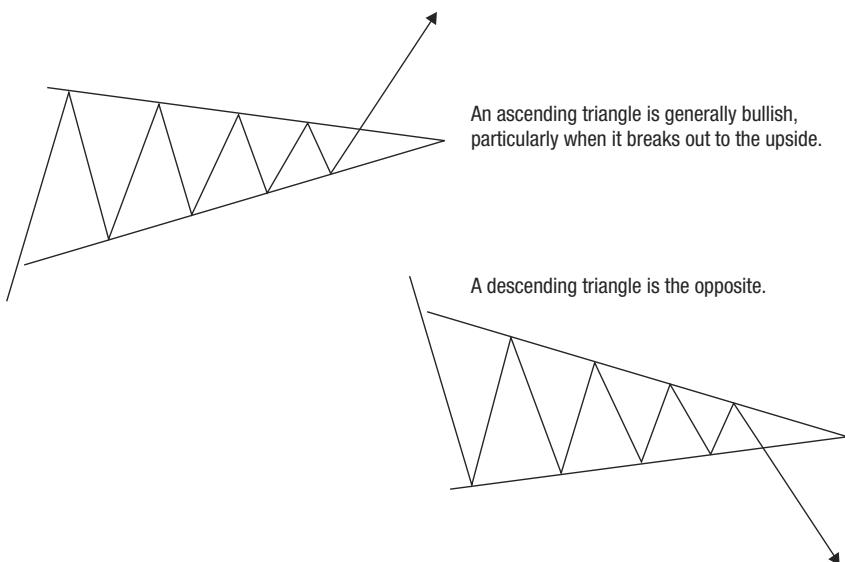
Pennants are good for identifying straddle opportunities, which I talk about later.

**Chart 4.4.1 ● Pennant for MNMD**

TC2000®.com. Courtesy of Worden Brothers Inc.

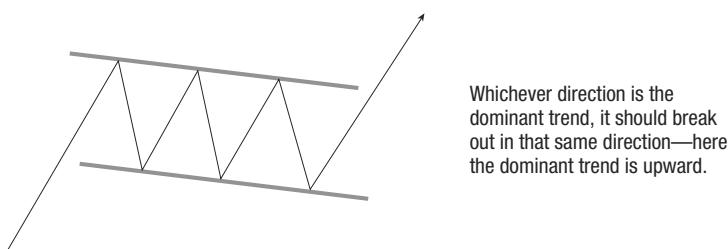
**Diagram 4.4.2 ● Triangle.**

Triangles can resolve themselves either upward or downward. Again, they can be good for spotting good straddle opportunities.

**Diagram 4.4.3 ● Ascending and descending triangles.**

An ascending triangle is a bullish continuation signal. Notice that this pattern is characterized by multiple tops, which typically yield to the upside. The opposite typically occurs with a descending triangle, which is a bearish continuation signal.

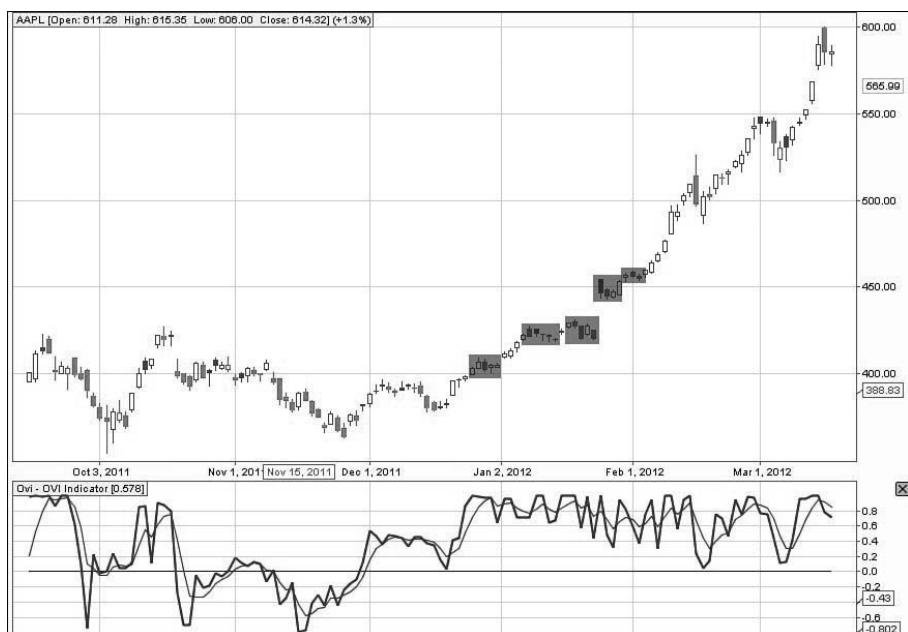
## Flags and Cup and Handles

**Diagram 4.4.4 ● Flag.**

A flag occurs during a persistent and dominant trend and temporarily interrupts that trend before resuming it. The flag itself consists of the price pattern rebounding off two parallel interim trendlines before breaking out in the direction of the dominant trend. Flags can be bullish (where the dominant trend

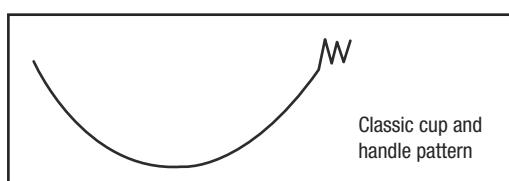
is bullish) and bearish (where the dominant trend is bearish). Typically the flag involves a gentle move in the opposite direction of the dominant trend before resuming. As such, flags, in the context of trends, can provide traders with a dependable pattern around which they can form a reliable trading plan.

**Chart 4.4.2 ● Bull flags for AAPL December 2011—February 2012.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

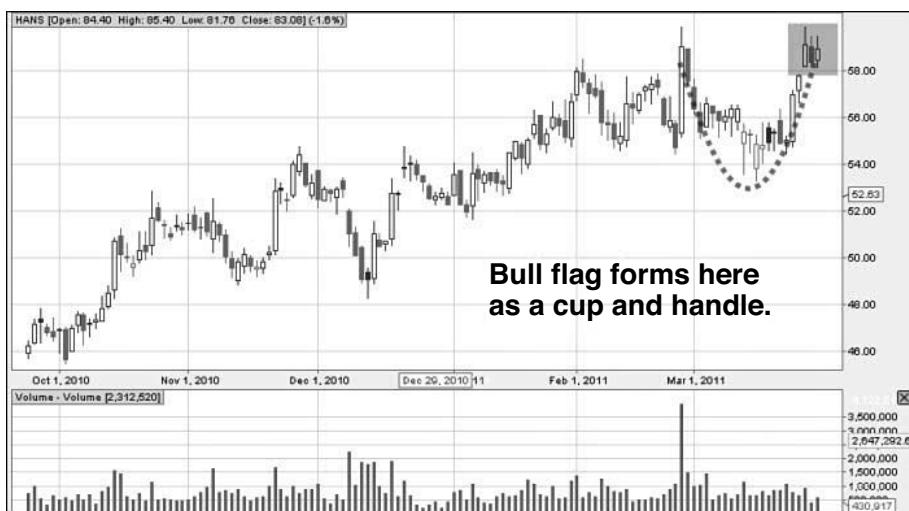
**Diagram 4.4.5 ● Cup and handle.**



A cup and handle is a bowl pattern with a bull flag at the end. In effect, these are two bullish patterns fused into one. As such, it's a prized pattern that often leads to meaningful breakouts. The cup part might vary in terms of the steepness of the cup and the position of the handle (flag) relative to the first lip of the cup.

Typically, we play them as standard flags, but do bear in mind that the first lip of the cup (on the left side of the diagram) does in itself form a resistance level.

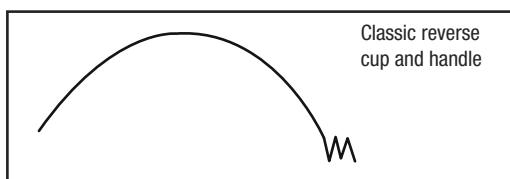
**Chart 4.4.3 ● Cup and handle for HANS (2011).**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

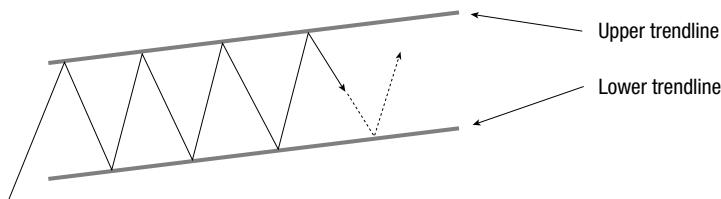
The opposite of a cup and handle is a reverse cup and handle, where the bowl is upside down and has a bear flag at the end of it.

**Diagram 4.4.6 ● Reverse cup and handle.**



## Channel Lines

As a stock is rising, there are times when you draw a rising trendline along the lows. You'll also be able to draw a parallel channel line along the highs. This forms a channel through which the stock has been trending. The same can apply for stocks moving down or sideways. This might occur over time periods ranging from days to months on daily charts. Over a period of days, we could be talking about a bull or bear flag. Over a period of weeks and months, it could be a channel with significant support and resistance.

**Diagram 4.4.7 ● Channel lines.**

If the price breaches the channel lines range, it might signify the end of this pattern.

**Chart 4.4.4 ● Channel lines for ALTR.**

TC2000®.com. Courtesy of Worden Brothers Inc.

In Chart 4.4.4, the channel lines are breached, yet the price consistently returns to the trend channel. Charts 4.4.3 and 4.4.4 are of the same stock, and yet the charts, which have different timescales, show two distinct patterns at the same time.

When you find channel lines in this way, you can identify price targets for trading various options strategies. With this one, I personally traded a short-term “bull put spread” to take advantage of the rising trend that repeatedly bounced off the lower trendline. I talk more about this strategy and how to use it in Chapter 7, “Bull Call Spreads and Bull Put Spreads.”

For now, it's clear to see where support was. On December 20, I identified \$25 (or \$50 as it was then, prior to a 2-for-1 stock split) as a potential low before the January expiration. I wasn't too fussed about the upper trendline given that I was trading a bullish strategy. All I was concerned about was that the stock wouldn't break down below \$25 on the January expiration date.

The trendlines had been holding for more than one year, and there was no obvious sign of an imminent breach to the downside that might occur in January. Where did I look to investigate the potential dangers? Well, this was a long time before I had created the OVI, so in those days I only had the more traditional ways of analyzing stocks. I looked at the overall market including the NASDAQ, the Dow Jones Industrial Average, and the S&P 500, searched the news for potential events that might indicate a change of sentiment, and finally made a search of the company itself. In searching the company, I noticed that ALTR was publishing its quarterly earnings report just after the January options expiration, and I also noticed that ALTR had (at that time) a consistent habit of exceeding earnings expectations. (The market changed significantly from March of that year, but at the time, my analysis was still relevant. Bull put spreads are best employed in a rising trending market and where there is strong support.)

I ended up placing an aggressive trade that yielded 74 percent in less than one month. Not the kind of trade that I would recommend to a rookie, but it was my style at the time.

## Fibonacci Retracements

The Fibonacci numbers are something you should be aware of, but don't fall into the trap of being mesmerized by them. The theory of the Fibonacci number sequence revolves around numbers that repeat themselves in nature. This sequence was used originally to explain the breeding cycles of rabbits. However, the numbers have a variety of other unlikely uses, for instance in interior design and trading.

Here's how the numbers work. Each number in the sequence is the sum of the preceding two numbers. Beginning with 0, the sequence runs as follows:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89...and so on.

Eventually and with the larger numbers, one will divide into its successor 1.618 times. 1.618 is known as the "Golden Ratio" and, together with its reciprocal, 0.618, these two numbers are found over and over again in nature, in history,

in science, and in many human activities. If you, like me, have an appreciation of numbers, then you'll enjoy a more in-depth study of the Golden Ratio. However, for trading only, use Fibonacci sparingly.

For basic purposes, the numbers relate to each other in ratios of approximately 38.2 percent and 61.8 percent. The mid-point between 38.2 and 61.8 is 50, so the key (rounded) ratios that we apply to trading are 38.2 percent, 50 percent, and 61.8 percent. Many price patterns seem to consistently adhere to these ratios in their individual movements (Dobson, 1984), but you'll find it impossible to know which ratio is hit without hindsight. This is why I'm cautious about Fibonacci.

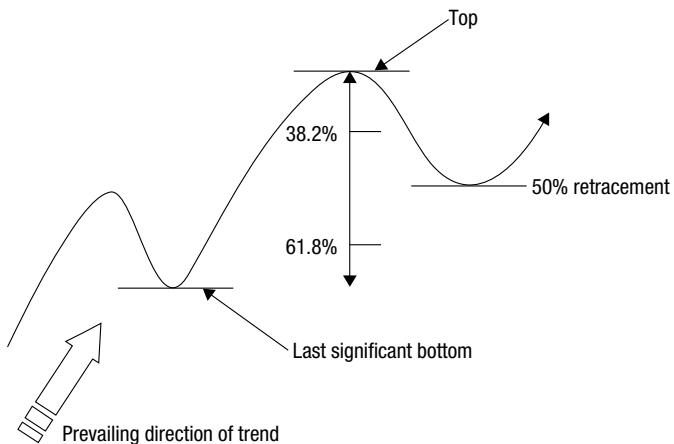
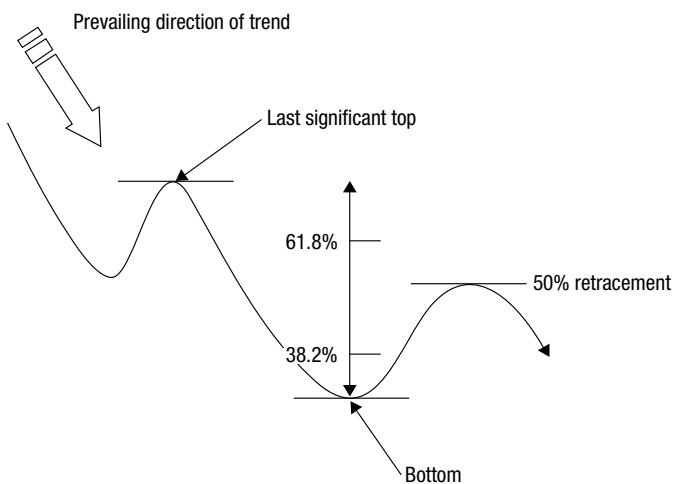
## What Is a Retracement?

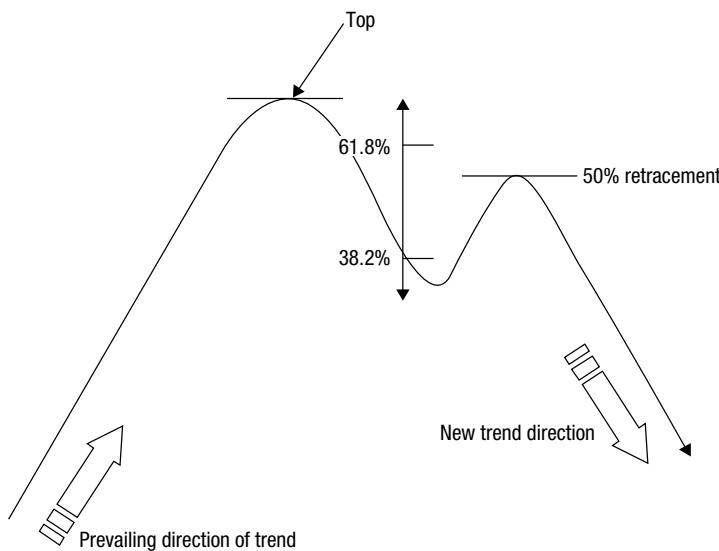
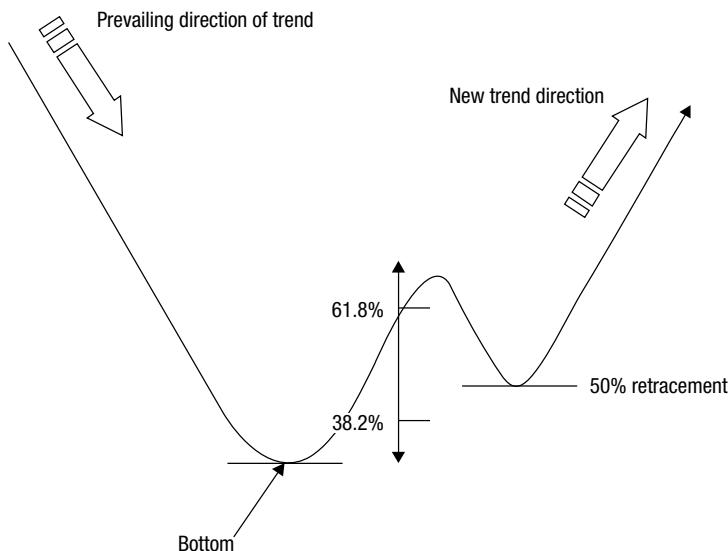
A *retracement* is where one of the following occurs:

- (a) A price series reaches a top and then falls back before resuming the uptrend (you measure the amount of the retracement from the last significant bottom—see Diagram 4.5.1), or an up-trending price series reaches a top, falls back to make a bottom, and then resumes its uptrend only to falter at the retracement point and drop down, forming a new downtrend (see Diagram 4.5.3).
- (b) A price series reaches a bottom and then rises before resuming the downtrend (we measure the amount of the retracement from the last significant top—see Diagram 4.5.2), or a down-trending price series reaches a bottom, rises up to make a top, and then resumes its downtrend only to change direction at the retracement point, start rising to form a new uptrend (see Diagram 4.5.4).

Where Fibonacci is relevant is that the amount of the retracement will often be close to one of those percentages: 38.2 percent, 50 percent, or 61.8 percent.

Fibonacci can apply to time and price, but the more you get into it, the more you'll run around in ever decreasing circles. It's fascinating, but without the benefit of hindsight, its uses are limited.

**Diagram 4.5.1** ● Fibonacci (downward) retracement with continuing upward trend.**Diagram 4.5.2** ● Fibonacci (upward) retracement with continuing downward trend.

**Diagram 4.5.3** ● Fibonacci retracement with change in trend direction.**Diagram 4.5.4** ● Fibonacci retracement with change in trend direction.

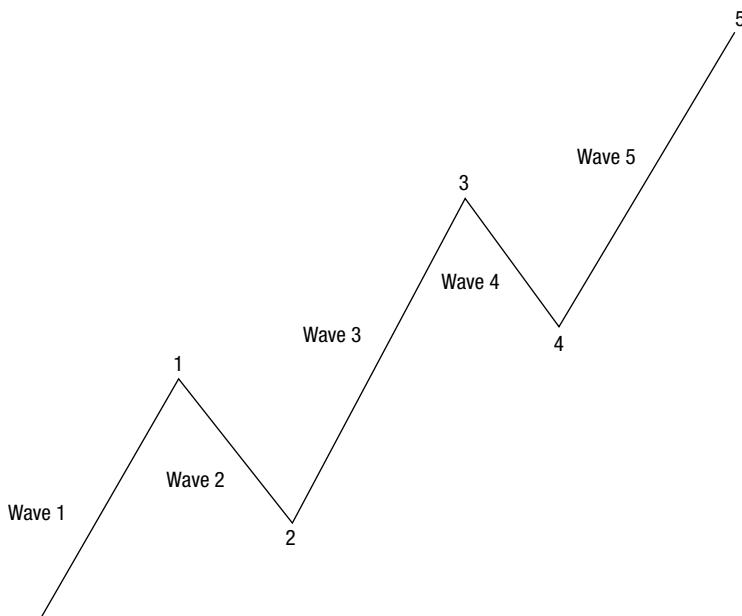
## Elliott Wave

Elliott Wave is inextricably linked with the Fibonacci number sequence and is even more of a hazard. The theory is that prices move in waves. The problem is that no two Elliott Wave experts can ever agree which wave is which until after the pattern is over. Of course by then the trading opportunity has expired! Elliott waves are coincidentally sequenced in the basic Fibonacci ratios. Let's go through each wave.

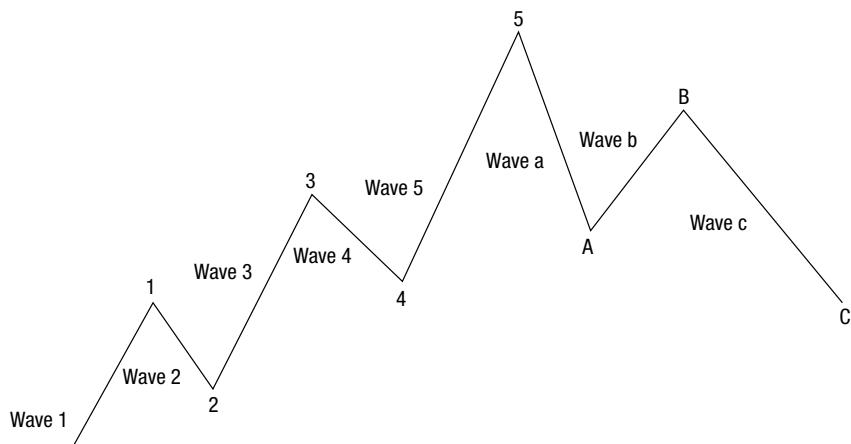
### The Basic Pattern

The basic premise is that there is an initial five-wave impulse. This impulse itself has three impulses of its own (wave 1, 3, and 5) and two retracement waves (2 and 4).

**Diagram 4.5.5 ● Basic Elliott Wave structure.**



Following a five-wave impulse, there will be a three-wave correction (A, B, C). Each wave 1, 3, 5 is an impulse wave that divides into five smaller waves, and each wave 2 and 4 is a corrective wave that divides into an A, B, C wave.

**Diagram 4.5.6** ● Elliott Wave impulse and correction.

## The Basic Rules

This is an elementary overview of Elliott Wave, and although I have deep reservations about it, an elementary understanding of it will round your knowledge base, hence its inclusion here. The basic rules of Elliott Wave can be summarized as follows:

### Impulse Waves:

- Wave 1 has five waves (1, 2, 3, 4, 5).
- Wave 2 has three waves (A, B, C).
- Wave 3 has five waves (1, 2, 3, 4, 5).
- Wave 4 has three waves (A, B, C).
- Wave 5 has five waves (1, 2, 3, 4, 5).

### Corrective Waves:

- Wave A has three or five waves (1, 2, 3) or (1, 2, 3, 4, 5).
- Wave B has three waves (A, B, C).
- Wave C has five waves (1, 2, 3, 4, 5).

## Elliott Wave with Fibonacci

We have already seen an elementary relationship between Elliott Wave and Fibonacci. We can go a little further with this by way of the relationships

between the waves themselves. These are not necessarily definitive, but where they do occur can be helpful to our overall analysis. Here are just a few of the major rules defining the relationships between the waves:

#### The Impulse Waves:

- Wave 2 will be a Fibonacci retracement of Wave 1.
- Wave 2 cannot retrace more than 100 percent of Wave 1.
- Wave 3 will usually be a Fibonacci extension of Wave 1.
- Wave 3 is typically the largest wave and is never the shortest.
- Wave 4 will be a Fibonacci retracement of all waves 1, 2, and 3.
- Wave 4 will have a Fibonacci relationship with Wave 2.
- Wave 4 should not typically retrace further than the end of Wave 1.
- Wave 5 will be a Fibonacci extension of Wave 1 or 3 and completes the 5-wave impulse sequence.

#### The Corrective Waves:

- Wave A, B, C will be a Fibonacci retracement of waves 1, 2, 3, 4, and 5.
- Wave C will be a Fibonacci extension of Wave A or Wave B.

## Elliott Wave Summary

As we can see, there is a lot to understand about Elliott Wave and its relationship with Fibonacci, and unfortunately most of it works best with hindsight...which isn't too handy for us as traders!

## Gann Levels

It is thought that W. D. Gann was the first trader to use the Fibonacci retracement ratios. The numbers used by Gann are either the same or only fractions away from the Fibonacci numbers, and he believed that highs and lows were all related to each other by these ratios. He also believed that the ratios could be used to make accurate assessments of when price targets would be reached. In essence, Gann theory is based both on time and on price. The problem with Gann is that just about every number you can think of seems to be a possible Gann number! As with Elliott Wave, I have deep reservations about

Gann Theory. However, it's useful to have a basic understanding of it just to broaden your knowledge base.

From my experience of using Gann, it's a bit hit-and-miss. Personally, I've had some good experiences trading both Gann and Fibonacci, but I've also had some shockers. The problem with these number-based theories is that it messes with your trading psychology. The more you believe in some sort of divine order for the markets, the more your trading plans become compromised. And that would mean the end of your trading vocation!

So again, please tread carefully around this area. Sometimes it seems to work perfectly, but more often than not, it doesn't. Remember, a broken clock is right twice a day...so it goes for Fibonacci, Elliott, and Gann.

As a short summary, here is Gann explained simply for you:

- Gann believed that there is a relationship between every low (bottom) and every future high (top). He also believed that there is a relationship between every high (top) and every future low (bottom).
- Gann calculated four levels that appeared to have an unusual significance to trading levels in a price series—these are known as the Major Gann Levels. He calculated others, but for our purposes, the following sections describe the principal ones.

## The Major Gann Levels

$$G1 \text{ Level} \quad \frac{\text{All Time High Price}}{2}$$

- This is the most significant Gann Level.

The rule here is that in a significant downtrend, the G1 level acts as support. If the price breaks down below G1, it is likely to go down to G3. If the price has fallen through G1, it becomes resistance.

$$G2 \text{ Level} \quad \frac{(\text{All Time High Price} + \text{All Time Low Price})}{2}$$

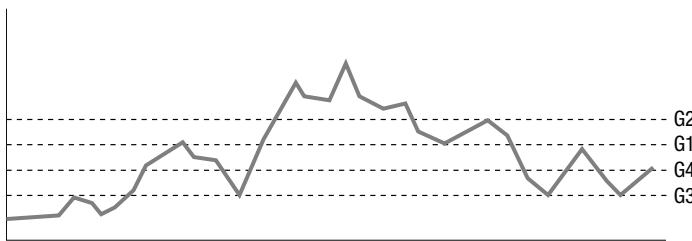
$$G3 \text{ Level} \quad \frac{\text{All Time High Price}}{4} \quad \text{or} \quad \frac{G1}{2}$$

- This is the second most significant Gann Level.

The rule here is that if the price falls below G1, then G3 should act as support if the price falls that far. If the price falls below G3, then G3 acts as resistance.

$$G4 \text{ Level} = \frac{(\text{All Time High Price} - \text{All Time Low Price})}{4} + \text{All Time Low Price}$$

**Diagram 4.6.1 ● Major Gann Levels on a standard price chart.**



## Gann Percentages and Angles

Gann believed that the relationship between price highs and lows was determined by certain percentages. These percentages can be used to determine either the price or the time of establishing a future target. Such a future target can be established by projecting a price level, a time, or an angle from a significant high or low.

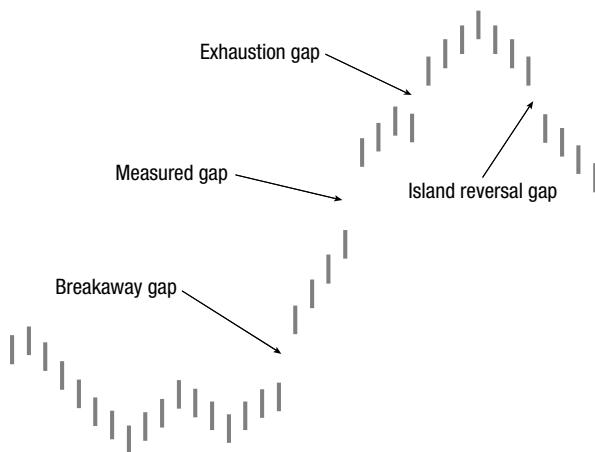
## Gaps

A gap occurs when a price series experiences an explosive jump either up or down between price bars. We usually refer to gaps occurring on a daily or weekly bar basis. Gaps are essentially points of exceptionally high or low demand. The theory is that the pent-up buying or selling pressure that forms the gap in the first place will follow through with more buying or selling. For this reason, gaps are believed to be good indicators in a continuation of a move in the same direction.

There are four main types of gaps, as the table describes.

Gap	Identification	Comment
<b>Breakaway gap</b>	Occurs at the end of a move and goes in the opposite direction.	High significance and usually the easiest to identify and most profitable to trade.
<b>Measured gap</b>	Occurs in the middle of a trend, giving us a target for the end of the move.	The measured gap is thought to signify the midpoint (50% point) of a move.
<b>Exhaustion gap</b>	Occurs at the end of a move. Only identifiable by watching the price action after the gap itself. If the price moves back into the gap area, then you can recognize the gap (with the benefit of some hindsight) as an exhaustion gap.	High significance even though it is only recognizable after a price reversal. Usually exhaustion gaps occur at the end of a significant move up or down, suggesting a final flurry of activity before reversing direction.
<b>Island reversal gap</b>	You can spot an island reversal gap by the fact that it usually follows an upward exhaustion gap or upward measured gap, leaving an "island" behind.	This is thought to be a strong signal that stock is on its way down.

**Diagram 4.7.1 ● Gaps.**



**Chart 4.6.1 ● Gaps for PMC Sierra Inc**

TC2000®.com. Courtesy of Worden Brothers Inc.

In Chart 4.6.1, the exhaustion gap in February is easy to spot, although it is only truly identifiable once the price has returned to not only fill in the gap but break down through it.

The measured gap in May is identifiable by the period of consolidation immediately after it. Although the gap is filled twice in the following month, it is never breached to the downside, and at the end of June the uptrend continues.

The breakaway gap in October can be identified by the end of the upward retracement move. The trend is now firmly established as downward.

The measured gap at the end of October confirms the previous breakaway gap and the underlying downward trend of the stock. Notice how in December there is an upward retracement, which does not fill the gap before resuming the downtrend.

The island reversal gap in the following January could also be identified as a breakaway gap, but you should notice that there is a small exhaustion gap just a few days before.

I know of many people who swear by gaps. The problem with gaps is that they are often best identified after the event, and this can make them tricky to trade without the benefit of hindsight. For my own trading style, I prefer to be able to set targets, and if they are not reached, I can simply exit with a small loss. You can do this with gaps too, but I recommend paper trading gaps for some time and recording your performance honestly. Remember also that gaps do not always fill, but “nature hates a vacuum,” hence the reason they do fill so often. Gap filling can be rationally explained by the fact that unfilled orders are outstanding after a gap, and brokers are in business to fill those orders.

## Volume

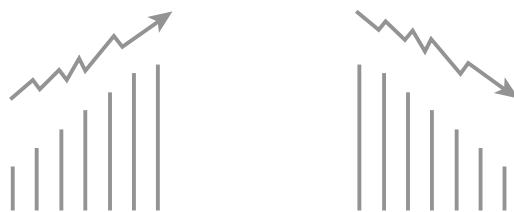
Volume is a term used to describe the amount of units traded in a particular stock, future, commodity, or any security that has its own price series.

It's a significant indicator because it helps us to understand the levels of demand and supply in a particular security. Falling prices are generally an indication of reduced demand for a stock and vice versa. Using a volume bar chart, you can start to make other interpretations as well. In general, a move may not last too long if there's no decent volume to go with it. On the other hand, where a move is accompanied by high and increasing volume, the move is more likely to be one that is sustainable. Volume makes prices move.

**Diagram 4.8.1 ● Volume and price patterns.**

If volume and price move together (up or down), this is a *bullish* sign.

- If the price is moving up and volume is increasing, there is clearly more buying pressure stimulated by an increasing number of orders; hence, the price is likely to continue rising in the short term.
- If the price is falling but volume is also falling, this represents a lack of conviction in the markets, and a price reversal to the upside could be likely.



If volume and price have a trend divergence, this is a *bearish* sign.

- If the price is rising but on falling volume, this represents a lack of conviction in the markets, and a price reversal to the downside could be likely.
- If the price is falling with increasing volume, this is a clear sign of increasing selling pressure, which is likely to drive the price further down, at least in the short term.



## Volume Spikes

A volume spike is where a volume bar exceeds its 21-day average by upwards of 50 percent. If a volume spike occurs together with a Doji price bar, this can be a powerful reversal signal. In Chart 4.7.1 you can see that the stock is in a downtrend from December. Notice that whenever it makes a relief rally or upward retracement, it is usually pre-empted by a volume surge on the creation of a new bottom. On this chart, volume spikes also occur when new mini-peaks are formed in the midst of the downtrend.

**Chart 4.7.1 ● Volume spikes.**

TC2000®.com. Courtesy of Worden Brothers Inc.

<b>Point</b>	<b>Description</b>
<b>A</b>	End of long-term up-trend signaled by significant volume spike.
<b>B</b>	Recovery retracement ends with a volume spike.
<b>C</b>	New low formed with a volume climax—notice the short-term relief rally (upward retracement afterward).
<b>D</b>	New low formed with a significant volume spike followed by upward retracement.
<b>E</b>	Small volume spike heralding end of rally and resumption of dominant downtrend.
<b>F</b>	New low formed followed by upward retracement.

As you can see, there are a number of volume spikes on the chart, and they nearly all correlate closely with the end of a move upward or downward, followed closely by a price reversal.

## Technical Indicators

In addition to all the various price chart patterns, technical analysts use a host of technical indicators. These are typically mathematical formulas, which are derived from price action and in some cases volume as well.

As with all aspects of technical analysis, I should warn you that it's easy to get lost in all the jargon and different techniques that exist. Personally I only trade a couple of patterns and indicators, namely consolidations or approaches of support and resistance, all in conjunction with my OVI indicator; and I also trade specific reversal signals. That's it. I have a bunch of knowledge that is useful to have for the purpose of context, but I implement only a couple of strategies. This chapter is all about making you aware of some of the different techniques and indicators that exist, rather than focusing on just one. For that, my book *The Insider Edge* (Wiley) details exactly how I use the OVI indicator and gives you free access to it. I'll also summarize the OVI here in Chapter 12, "Trading with the OVI."

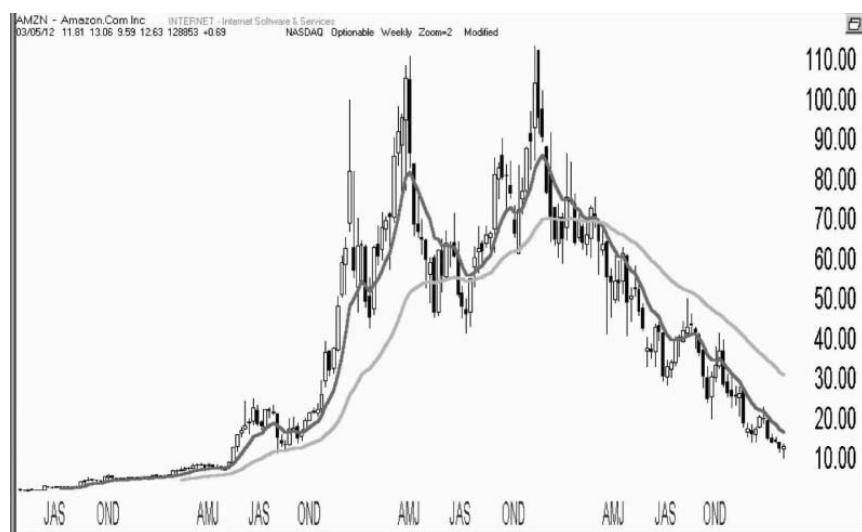
## Moving Averages

I use them sparingly, but moving averages are the most well-known technical indicators. A *moving average* is simply the average closing price of a period of bars on a price chart. So, on a daily chart, a 50-period moving average is the average of the last 50 days' prices. Tomorrow's moving average will include what happened today (but not tomorrow), and, similarly, today's moving average includes what happened yesterday (but not today!). Moving averages are most useful for the way in which they smooth price action and are often used to illustrate support or resistance. The only problem with this is which moving average to use, which in itself becomes a highly subjective exercise.

**A moving average is simply the average closing price of a period of bars on a price chart.**

I want to be as objective as I can with charts because I don't want to convince myself of something that might not be there. Some traders become attached to a particular moving average, and this can skew their objective judgment and damage their trading.

Another way of using moving averages is to have two of them, one short-term and one long-term. The idea is that when the short moving average rises up through the long-term moving average, this is a bullish signal. When the short-term moving average falls down through the long-term moving average, this is seen as a bearish sign. This type of moving average analysis works only with trending price series. With trending prices, the moving average crossovers can help you to determine whether or not a trend has finished and a reversal is in place. This is not a technique to use with rangebound stocks.

**Chart 4.8.1** ● 10- and 40-week moving averages for AMZN.

TC2000®.com. Courtesy of Worden Brothers Inc.

Notice how the ten-period moving average (the shorter one) moves much faster and closer to the actual price bars, and notice how the longer moving average is so much more smoothed.

You can see that on the basis of moving average crossovers, a buy signal would have occurred at some time in 1998 and that it didn't reverse into a sell signal until roughly March 2000. Despite the huge swings in price, this would have been a successful trade by any standards. However, the success is mostly down to having selected a stock that literally flew to the stars from nowhere. The daily chart of AMZN is not quite as clear.

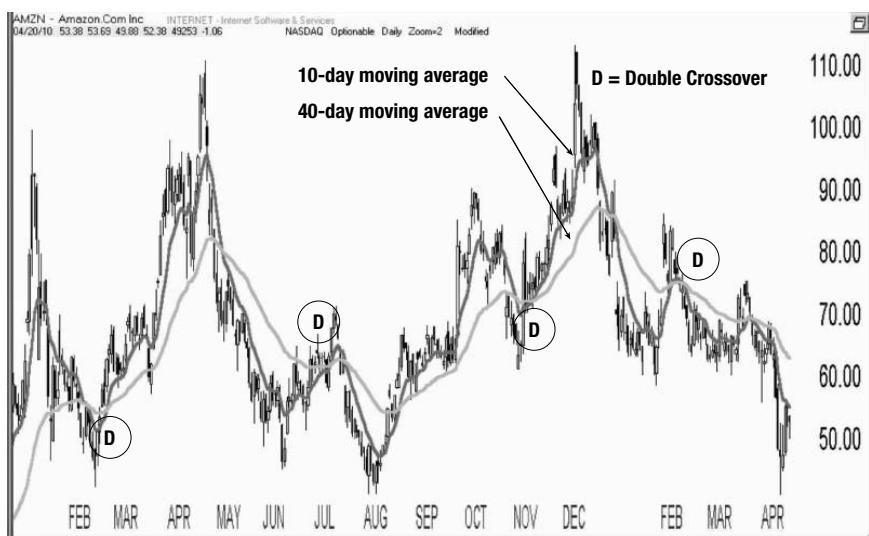
**Chart 4.8.2 ● 10- and 40-day moving averages for AMZN.**

TC2000®.com. Courtesy of Worden Brothers Inc.

Now we have a daily chart of AMZN covering the uptrend. Notice that the moving averages cross over in August, September (twice), and October, even during a strong uptrend. These crossovers can be interpreted as signals, which in the preceding graph, wouldn't have been too damaging to your profits.

The following chart shows what happened after this.

**Chart 4.8.3 ● 10- and 40-day moving averages for AMZN.**



TC2000®.com. Courtesy of Worden Brothers Inc.

Now we're looking at the time when Amazon had stopped trending upward and was making a beautiful double top. But look at the moving averages. They are now crossing over with increasing frequency, and because the stock has stopped trending, the moving averages are giving bad signals or double signals (D), which at best are confusing.

**Chart 4.8.4 ● 10- and 40-day moving averages for AMZN.**

TC2000®.com. Courtesy of Worden Brothers Inc.

Notice now that we're back into a trending situation. This time the trend is downward, there are fewer double crossovers, and the position is clearer.

The rule for moving averages is that they work best in trending markets.<sup>1</sup> They do not work well at all in sideways moving markets. Just as an illustration, how would you have liked to have been trading FNM on the basis of moving averages in 1999 (see Chart 4.8.5)? Pretty confusing!

<sup>1</sup> The most popular moving averages are 200, 50, 40, 20, and 10-day moving averages.

**Chart 4.8.5 ● 10- and 40-day moving averages for FNM.**



TC2000®.com. Courtesy of Worden Brothers Inc.

## Moving Average Convergence Divergence (MACD)

MACD is a measure of the relationship between two moving averages of the same price series. MACD is a moving average of the difference of two moving averages of price. As such, it is a measure of momentum in the price movement (Appel, 1979). As the moving averages move further apart, this is a sign of increasing momentum. Because MACD is a measure of the relationship of two moving averages, it stands to reason that it can be used as a trend-indicative indicator. This follows from the fact that moving averages are best used to identify trending patterns as opposed to consolidation price movements.

As with moving averages, the numbers used for MACD are highly subjective. As such I don't use it. For those who do, MACD can be read and interpreted in all kinds of ways. Some traders prefer to look at it as a histogram and to interpret it as a divergence indicator. Others prefer a line version. There are three main ways to interpret MACD: namely simple crossovers, overbought/oversold, and divergence:

- **Simple crossovers**

When MACD crosses the zero line, this is seen as a signal. The basic idea is that when MACD breaks up through the zero line, this means the moving averages have crossed upward and vice versa.

- **Overbought/oversold**

The further the *shorter moving average* moves away from the *longer moving average*, the more the security becomes overbought or oversold. In these instances, it is likely that the security price is overextended and will pull back to less extreme levels.

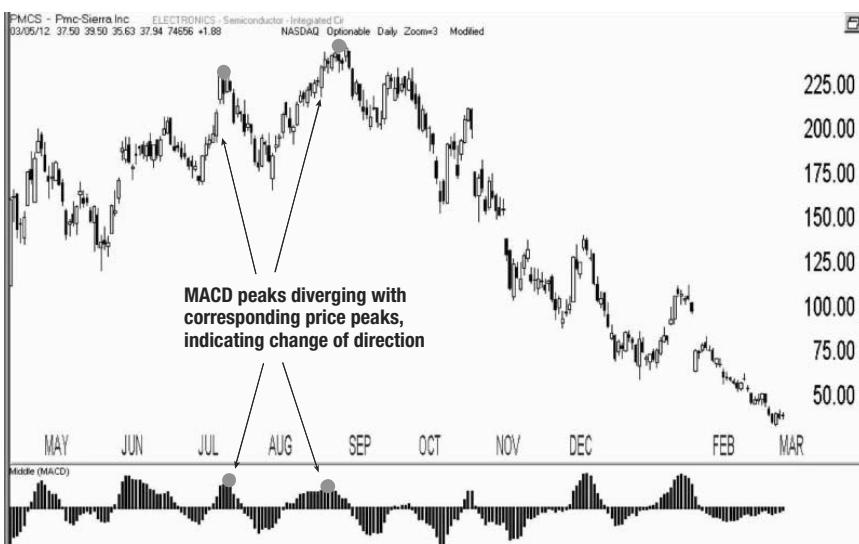
- **MACD divergence (Elder, 1993)**

A divergence occurs where price action is not reflected in the MACD behavior and vice versa. A popular method of analyzing MACD is to look for where the security makes a new high, but the MACD fails to surpass its own previous high (or vice versa).

There are two main ways to look at MACD divergence:

- (a) Where MACD makes new lows but the price does not, there is a bearish divergence. Where MACD makes new highs but the price does not, there is a bullish divergence. These divergences are most significant when MACD is at overbought and oversold levels.
- (b) Where the MACD peaks and troughs differ with those of the underlying price action. One rule is that if the price peaks rise but the MACD peaks fall, a divergence occurs, and you should be prepared for a change in direction in the trend.

**Chart 4.8.6 ● MACD bar chart for PMCS.**



TC2000®.com. Courtesy of Worden Brothers Inc.

In Chart 4.8.6, the simple crossovers are easy to spot because the MACD histogram simply moves from either side of the horizontal line.

Overbought and oversold levels occur consistently with dramatic price movements, so these too are easy to spot.

We can also identify one of the divergence criteria with ease. Notice how if you draw a line between the two price peaks, the line would slope upward, while drawing a line between the corresponding MACD peaks would result in a downward slope. This is divergence and can be interpreted as an indication that the price direction is about to change. Be aware that no one pricing pattern or indicator works all the time and that we are simply conducting an overview here.

An alternative way of looking at MACD is simply looking at a line of MACD itself and an average of MACD. As MACD crosses its average down, this could be interpreted as a bearish signal, while MACD crossing its average upward could be seen as a bullish sign.

**Chart 4.8.7 ● MACD lines for PMCS.**



Chart created on TradeStation®, the flagship product of Tradestation Technologies Inc.

## Stochastics

A *stochastic* is an oscillator, which is used to determine whether a market is overbought or oversold. As with many of the technical analysis indicators, it is best used not in isolation but in conjunction with other indicators and chart patterns, which might outline whether a market is moving up or down, with or against the underlying trend.

The Stochastic Oscillator measures the relationship of a security's closing prices (on given price bars) with its highs and lows. It consists of two lines, percent K and percent D, and ranges between 0 percent and 100 percent. A reading of 0 percent shows that the security's close was the lowest price that it has traded during the preceding x-time periods. A reading of 100 percent shows that the security's close was the highest price that the security has traded during the preceding x-time periods.

Many traders identify the 25 percent and 75 percent bounds of the stochastic as being oversold or overbought. The problem with this approach is that you might miss a large part of the down move or up move (depending on whether you are playing the market long and short). The other problem with playing the stochastic signals at these levels is that often a protracted, and consistent trend might not trigger the stochastic to breach the 25 percent or 75 percent levels at all, thus preventing you from taking advantage of a so-called signal. As such, the stochastic is an often-misinterpreted indicator.<sup>2</sup>

Another interpretation made by traders is that a signal is given when the lines cross each other. When the fast line breaks upward through the slow line, this is a bullish signal, and when the fast line breaks down through the slow line, this is a bearish signal. The trick is to select the appropriate time frames and stochastic parameters, which alone could be a book in itself.

Many traders simply have a passing knowledge of stochastics and use it misguidedly and therefore unprofitably. The aim of this chapter is simply to give you a flavor for the various tools that exist to help you determine likely price movements so you can then select the appropriate options strategy. Technical analysis is a vast subject, and the first step is to get an idea of the main chart patterns and indicators. For some, this chapter is just the first step.

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<sup>2</sup> For further reading on stochastics, take a look at Bernstein (1987) or Lane (1984).

## The Relative Strength Index (RSI)

Created by Welles Wilder, the RSI<sup>3</sup> is another measure for overbought/oversold analysis, and it can also be used to highlight trending patterns. Using a horizontal 50 percent mid line, most followers of RSI take a buy signal above the mid line and a sell signal below the mid line.

The RSI measures the internal strength of a single security and does not compare the relative strength of two securities.<sup>4</sup> It is a price-following oscillator that ranges between 0 and 100. Much like the MACD divergence interpretation, a popular method of analyzing the RSI is to look for a divergence where the security itself is making a new high, but the RSI is failing to exceed its own previous high. This divergence is interpreted as an indication of a likely reversal.

It is thought that the RSI itself also forms chart patterns such as support and resistance, head and shoulders, or triangles (as described earlier in this chapter) that might not actually be visible on the price chart.

RSI usually makes its own tops above 70 and bottoms below 30, usually preceding the underlying price chart. The problem with the RSI is that because its maximum is at 100, it can be misleading for strong market moves. So if the RSI is, say, just 10 and a significant down move continues, then the RSI has only 10 more points to go, whereas the market might well have much further to go down. The same would apply if the RSI is in the 90s and a strong upswing keeps going.

## Different Time Frames

Chart patterns and indicators can vary substantially when you view charts over different time frames. Because of this, their signals also vary, and your interpretation must therefore take into consideration the time frame you are looking to trade.

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<sup>3</sup> See Welles Wilder (1978).

<sup>4</sup> The comparison analysis tool is called the Comparative Relative Strength (or Comparative Strength), which measures one security's performance against another's. The Comparative Strength is a useful indicator to compare how, say, a stock is performing compared with its sector or an index or another security within the same industry or sector. Comparative Strength is simply calculated by dividing one security's price by another's (the comparison security), thus forming a ratio that forms the basis of the Comparative Strength.

For example, consider the following price charts:

**Chart 4.8.8 ● Time frames—daily chart over six months for Citigroup.**



TC2000®.com. Courtesy of Worden Brothers Inc.

To the naked eye, Chart 4.8.8 appears to suggest that price action is range-bound. The October low has been breached, but the March 14 close has finished above the October low. Not a great prognosis overall, but I'd prefer some more clarity on the situation.

A look at the weekly chart over 12 months could shed some light on what's going on here. See Chart 4.8.9.

**Chart 4.8.9 ● Time frames—weekly chart over 12 months for Citigroup.**



TC2000®.com. Courtesy of Worden Brothers Inc.

Here we can see that between September and January a clear double top has formed, and although nothing else is necessarily jumping out of this particular chart, the double top alone would put me on alert since early January.

The theory is that the longer the time period of the pattern, the stronger and more important the pattern becomes. For example, a two-month identifiable pattern is a far more powerful indicator than a ten-minute identifiable pattern on an intraday chart.

You should look at charts over different time periods, especially if you're intraday trading, so you can be aware of more powerful areas of support and resistance in the longer time frames. If you're trading end-of-day daily bars, you should also be aware of the weekly bars.

## More Technical Analysis Terminology

Name	Meaning	Comments
<b>Advance/decline line</b>	The A/D line is a measure of market breadth. It is simply the cumulative total of the advancing/declining issues indicator, which measures the number of advancing "issues" versus the number of declining "issues" on the NYSE.	When more stocks rise than fall, the A/D line is positive and vice versa. As such, it is a useful measure of market breadth. The Dow Jones Industrial Average (DJIA) is an index of just 30 stocks. Although it is viewed as a total market bellwether, 30 stocks is hardly representative. The NASDAQ is weighted toward technology stocks, again, hardly a representative sample. Therefore, the advance/decline indicator is seen as a useful tool to gauge market strength or weakness as a whole.
<b>Bollinger bands</b>	Bollinger bands are lines that are plotted at standard deviation levels above and below a moving average. Because standard deviation is a measure of volatility, Bollinger bands are seen as self-adjusting (for volatility) and, when placed over a price chart, the basic interpretation is that the price stays in between the two bands.	Bollinger bands expand during high volatility times and contract during phases of low volatility. Some observations have shown that sharp price movements can be expected when the bands have tightened to extreme levels. There are a number of other observations, which we don't go into here. For more information on Bollinger bands, take a look at the tutorial on the Web site <a href="http://www.bollingerbands.com">www.bollingerbands.com</a> .
<b>Momentum</b>	Momentum is a measure of how much a security's price has changed over a given time span.	
<b>Standard deviation</b>	Standard deviation (SD) is a statistical measure of volatility. In technical analysis, it is typically used as a component part for other indicators, such as Bollinger bands.	High SD values occur when prices have been moving dramatically and vice versa. Watch out for major tops and bottoms to coincide with high levels of volatility.

Name	Meaning	Comments
<b>Put/call ratio</b>	Another measure of market breadth and a contrarian indicator, the P/C ratio reflects the number of puts and calls bought on the CBOE. The indicator assumes that put buyers are bearish and call buyers are bullish. Later you'll see that this is not always necessarily the case, given that calls and puts can be bought and sold in different combinations to set up hedged trades.	The higher the P/C ratio, the more bearish the market is feeling. As a contrarian indicator, you might interpret a high P/C ratio as a good time to buy. Obviously, you'd combine this indicator with others.
<b>New highs/ new lows</b>	This indicator displays the number of stocks making 52-week highs against the number making 52-week lows.	
<b>On balance volume</b>	On balance volume is a measure of volume but assumes that on an up day, all the volume is up volume and on a down day all the volume is down volume. The theory is that on balance volume is a leading indicator in that it shows where the smart money flows before prices confirm the move. A price surge without the requisite on balance volume move would be considered as unconfirmed.	
<b>Open interest</b>	Open interest is simply the number of options or futures contracts unexercised or open at a given point in time. An open contract is simply one that has not been exercised, closed out, or allowed to expire. Open interest increases when two parties enter into a new options or futures contract (remember there are always two parties to a trade) and decreases if the existing contract is liquidated.	In its own right, open interest is purely a measure of liquidity or, rather, activity in a particular underlying security's options or futures series. Some followers believe that rising open interest coupled with rising volume is a confirmation of the current trend direction. On the other hand, falling volume and falling open interest is thought to be a sign that the current trend is about to reverse.

Name	Meaning	Comments
<b>VIX</b>	The VIX is a volatility index as measured from the Standard and Poor's 100 index.	Generally, when the market rises, the VIX is low, but when prices experience fast falls, the VIX is high, reflecting increased panic among traders and investors. Contrarian traders look at the VIX for a guide to investor sentiment. They surmise that when the VIX is high, most of the sellers leave the market, so it may be a good time to buy. Hence, the expression, "When the VIX is high, time to buy; when the VIX is low, time to go."
<b>12-month high</b>	The highest price reached by the stock in the last 12 months.	
<b>12-month low</b>	The lowest price reached by the stock in the last 12 months.	

This list is simply an outline of the better-known technical indicators and is by no means exhaustive. Many website resources contain detailed descriptions of technical indicators and chart patterns. Try [www.investopedia.com](http://www.investopedia.com) for a start.

## The OVI

In Chapter 12, I give a full explanation of my proprietary OVI indicator, which falls under the auspices of technical analysis.

The OVI measures options transaction activity and plots the results underneath a stock chart. It means you can view a chart and simultaneously view whether options traders build positions.

The idea is that if they are, and the chart pattern is consistent with this, then a serious opportunity might develop.

For example, a bull flag combined with a positive OVI for several days can be an opportunity to buy. Or, a bear flag combined with a negative OVI for a few days might be an opportunity to sell.

The advantage of the OVI is that it is not averaged and therefore does not lag the market.

Also, its interpretation is simple and almost completely objective. There aren't different settings for it. It is what it is.

See Chapter 12 for more about the OVI or go to [www.theinsideredge.com](http://www.theinsideredge.com) for a free version of it.

## Chapter 4 Major Learning Points

To be a good trader, you have to have an understanding of chart patterns. Your challenge is to find the technique that resonates with you. For me, my bread and butter is trading breakouts in conjunction with the OVI.

Being well versed in the other patterns gives me a better feel for the markets, even though I stick with only a couple of patterns.

Trading options should come after you've attained a grasp of how stock prices move. But with options, that's just part of the story. It is quite possible to get the direction of the market right but still lose money due to a flawed options strategy.

To get good with options, it's going to require a bit of work to understand how they work, but no matter how good you are with options, you need to understand how charts work first.

What you've seen here is just a start. Many technical analysts use different indicators and chart patterns to varying degrees of success. Although you don't have to be a Nobel Prize mathematician to trade successfully, most of the successful technical traders do have a decent understanding of the broader syllabus, not just the patterns and indicators they follow. So, although I'm happy for you to focus on breakouts and the OVI, I want you develop a broader awareness, too.

Here's a summary of the chart patterns and indicators we've just been through. I've bolded my favorite patterns, but it's worth remembering that one pattern can fit into another. For example, a flag can form at the break of a neckline in a broader head and shoulders pattern.

Chart pattern	Breakout or reversal
<b>Support and resistance</b>	Both
<b>Doji Bar and 20-day price extreme</b>	Reversal
Double and triple tops and bottoms	Reversal
Head and shoulders	Reversal (down)
Reverse head and shoulders	Reversal (up)
<b>Pennants and triangles</b>	Both
<b>Bull flag</b>	Breakout (up)
<b>Bear flag</b>	Breakout (down)
<b>Cup and handle</b>	Breakout (up)

<b>Chart pattern</b>	<b>Breakout or reversal</b>
<b>Reverse cup and handle</b>	<b>Breakout (down)</b>
Trendlines	Both
Fibonacci retracement and expansion	Both
Elliott Wave	Both
Gann	Both
Gaps	Both
Volume spike	Both

<b>Indicator</b>	<b>Breakout or reversal</b>
Displaced and standard moving averages	Both
MACD	Reversal
Stochastics	Reversal
RSI	Both

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## chapter 5

# Two Popular Strategies and How to Improve Them

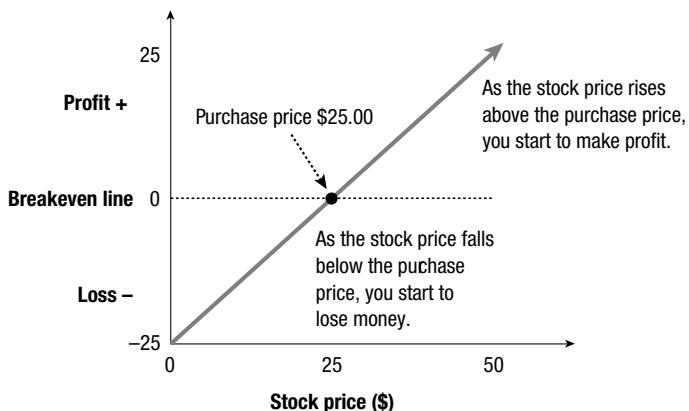
- Have you ever bought a stock with the view of holding it for some time, but you wanted to ensure against a downturn, just in case?
- Have you ever bought a stock with the view of holding it for some time, but where you wanted to receive a “dividend-like” payment every month for owning it?
- Have you ever bought a stock with the view of holding it for some time, where you wanted to receive the dividend-like payments but also wanted to ensure against the downside?

Well, the answer to all three questions is that you can do them all!

**Example 5.1**

Let's look at buying a stock again:

**Chart 5.1 ● Risk profile of buying a stock.**



As you can see, your risk is what you pay for the stock in the first place; in this example, it's 25.00.

## The Synthetic Call (Protective Put)

**Question:** When we buy the stock, how can we protect the position from falling?

**Answer:** Buy a put option as well. The combination of buying the stock and a put is known as a *synthetic call*.

**Question:** Which strike price for the put should we choose?

**Answer:** It depends on your appetite for risk. The protection starts at the strike price you select for the put. The further out-of-the-money (OTM)—with puts that means strikes below the stock price—the more risk you are willing to absorb.<sup>1</sup> If you are highly risk-averse, here you'd choose the 25 strike price, but if you're concerned only about a level of support, say at \$20, then you choose the 20 strike put.

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<sup>1</sup> Remember that for puts, OTM will be below the current stock price and for calls, OTM will be above the current stock price.

With respect to U.S. stocks, remember that you'll need to buy 100 shares for every put option you buy. In other words, you need to buy one put contract for every 100 shares that you buy. Remember that every U.S. stock options contract represents 100 shares.

Let's compare the risk profiles of buying the 25 strike puts versus buying the 20 strike puts.

A recap of our strategy shows us that we're buying the stock and also buying put options for insurance against a downturn.

**Diagram 5.1 ● Synthetic call.**



## Steps to Trading a Synthetic Call

1. Buy the stock.
2. Buy puts with a strike price close to the price at which you bought the stock.
- Notice that you have created the same shape of risk profile as that of a long call option (but you have paid a lot more for it here). What you are actually doing here is capping your downside risk by buying the put option having bought the stock.

Notice how the risk profile we're creating here is the same shape as that of a bought call option—hence the name, synthetic call. The difference is that with a synthetic call, you are paying a lot more money up front (than with a straight call option), because you're paying for both the stock and the put option. A synthetic call is also less risky in terms of your entire net debit (what you pay for the strategy), given that the total of what you can lose is restricted to the stock price plus the put premium less the put exercise price. A synthetic call is therefore safer in terms of your percentage possible loss from the amount of money you spend on the trade (net debit).

## Comparing the Risk of a Synthetic Call to a Long Call

### Example 5.2a

In these examples we use real figures from a well-known stock with liquid options. Here are the choices:

- **Straight call**—Buy the November 2012 25 strike call options for 5.25.
- **Synthetic call**—Buy the stock for \$25, and buy the November 2012 25 strike put options for 4.50.

	<b>Synthetic call (strike 25)</b>	<b>Simple long call (strike 25)</b>
<b>You pay</b>	Stock price + put premium: <b>25 + 4.50 = 29.50</b>	Call premium <b>5.25</b>
<b>Risk</b>	Stock price + put premium – put strike: <b>25 + 4.50 – 25 = 4.50</b> Risk of 4.50 is only 15% of your total cost.	Call premium: <b>5.25</b> Risk is 100% of your total cost.
<b>Reward</b>	Unlimited to the upside.	Unlimited to the upside.
<b>Breakeven</b>	Stock price + put premium: <b>25 + 4.50 = 29.50</b>	Call strike + call premium: <b>25 + 5.25 = 30.25</b>

Which one would you choose to do? Well, the answer depends on your appetite for risk and the amount of money you're willing to spend. Note that the price you pay (net debit) for a synthetic call is not equal to your risk for that trade. This makes the synthetic call considerably less risky than simply buying the call; however, this is balanced by the fact that the synthetic call is so much more expensive as well.

Now let's look at another example of a lower strike price for the put options.

### Example 5.2b

- **Straight call**—Buy the November 2012 20 strike call options for 8.00.
- **Synthetic call**—Buy the stock for \$25, and buy the November 2012 20 strike put options for 2.38.

	<b>Synthetic call (strike 20)</b>	<b>Simple bought call (strike 20)</b>
You pay	Stock price + put premium: <b>25 + 2.38 = 27.38</b>	Call premium: <b>8.00</b>
Risk	Stock price + put premium – put strike: <b>25 + 2.38 – 20 = 7.38</b> Risk of 7.38 is 27% of your total cost.	Call premium: <b>8.00</b> Risk is 100% of your total cost.
Reward	Unlimited to the upside.	Unlimited to the upside.
Breakeven	Stock price + put premium: <b>25 + 2.38 = 27.38</b>	Call strike + call premium: <b>20 + 8 = 28.00</b>

Again, the risk of the synthetic call is less than that of simply buying the call options, but the synthetic call is a much more expensive strategy (compare 27.38 to 8.00).

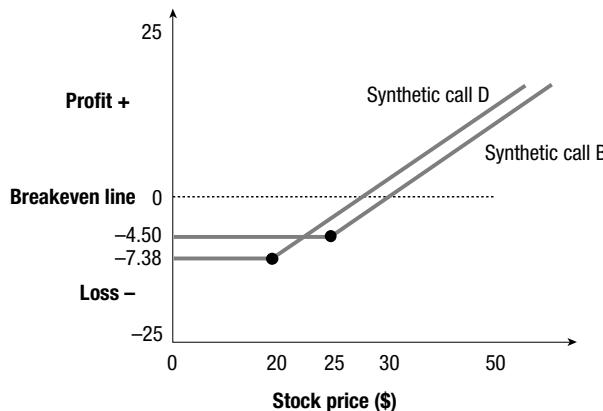
Let's compare the two synthetic calls we just looked at (B and D).

### Example 5.2c

	<b>Synthetic call B (strike 25)</b>	<b>Synthetic call D (strike 20)</b>
You pay	Stock price + put premium: <b>25 + 4.50 = 29.50</b>	Stock price + put premium: <b>25 + 2.38 = 27.38</b>
Risk	Stock price + put premium – put strike: <b>25 + 4.50 – 25 = 4.50</b> Risk of 4.50 is only 15% of your total cost.	Stock price + put premium – put strike: <b>25 + 2.38 – 20 = 7.38</b> Risk of 7.38 is 27% of your total cost.
Reward	Unlimited to the upside.	Unlimited to the upside.
Breakeven	Stock price + put premium: <b>25 + 4.50 = 29.50</b>	Stock price + put premium: <b>25 + 2.38 = 27.38</b>
Comparison	<ul style="list-style-type: none"> <li>• More expensive</li> <li>• Lower maximum risk</li> <li>• Higher breakeven</li> </ul>	<ul style="list-style-type: none"> <li>• Cheaper</li> <li>• Greater maximum risk</li> <li>• Lower breakeven</li> </ul>

What this table clearly shows is that the higher the put strike price you select for your synthetic call strategy, the lower your risk will be. However, you'll have to pay more up front for that added insurance; therefore, your breakeven point will generally be higher, too.

**Chart 5.1.1 ● Synthetic call comparison between B and D.**



The lower the breakeven point, the better your chances are of being profitable here, but the price you pay is the fact that you're risking more on the downside.

To ask which one to choose is a personal question that consists of a number of issues:

- What's your appetite for risk here?
- How does the stock behave?
- Where is the strongest support for the stock price?
- What are the charts telling you?
- What is the market telling you?

These questions will lead you to formulating a trading plan. In this particular situation, there is strong support at the \$20 level, and that may well impact upon your eventual decision. The stock has just gapped up almost \$2 this morning, and the market bounced up, too. If I had to make a choice here, I'd choose D because the breakeven is lower. The maximum risk is greater, but the stock price has to fall to \$20 for that to happen, and I am happy to take that risk for the next 7 1/2 months. (I would also exit my long position on a breakdown below \$24.00, but that is a moot point here.)

In conclusion, we can see how we can insure ourselves when we buy a stock for the medium term, by buying a put option. As with any type of insurance policy, the more insurance you pay, the lower your risk exposure should be.

## The Covered Call (Covered Write or Buy Write)

**Question:** When we buy the stock, we want to get some income back while we're holding it over the medium term—is that possible?

**Answer:** Yes. Sell a call option as well. The combination of buying the stock and selling a call is known as a *covered call*.

**Question:** Which strike price and expiration date for the call should we choose for this strategy?

**Answer:** In general, you should sell call options one or two strike prices OTM—with calls that means strikes higher than the price you paid for the stock—and with approximately one month left to expiration.

With respect to U.S. stocks, remember that to be covered, you need to buy 100 shares for every call option you sell. And remember that every U.S. stock options contract represents 100 shares.

**Diagram 5.2** ● Covered call.



### Steps to Trading a Covered Call

1. Buy the stock.
2. Sell calls one or two strike prices OTM (that is, calls with strike prices one or two strikes higher than the stock).
- Notice that you have created the same shape of risk profile as a short put option. The difference here is that you've bought the stock and have therefore had to part with cash to execute the purchase. Having bought the stock, you partially offset that purchase cost by selling short-term calls (say, on a monthly basis).

Remember that when you sell options, you generally want to sell them with short-term expirations only. There are two main reasons for this:

- Selling options is dangerous because of the unlimited risk profile that accompanies the strategy. This can be mitigated when the transaction forms a part of combination (spread) order.
- Shorter-term options are more expensive on a per-day basis than longer-term options. As an assignment, just compare two ATM options of the same stock, one with two weeks left to expiration and one with one year left to expiration. Then divide the option premiums by the respective number of days left until expiration. You'll find, without exception, that on a per-day basis, the shorter-term options are more expensive even though the nominal dollar amount is lower.

When you buy options premium, you want to give yourself as much time as possible to be right. This means that you should take advantage of buying the better value longer-term options. Even though they're more expensive in nominal dollar terms, they're much better value in terms of a per-day value. And there's not much point in not giving yourself adequate time to be right. At the same time, when you're selling options premium, you generally want to have as little time as possible to be wrong. When you think about it, this is all logical stuff.

Now that you can see that a covered call is the same shape of risk profile as that of a short (naked) put, let's compare the two strategies:

- Selling a naked put requires you to have an advanced trading account with your options broker. You also have to provide margin in your account to cover the potential risk.
- With a covered call, the call that you sell is “covered” by the fact that you have bought the stock. How is this so? Let's go through the process step by step:
  - (a) When you sell the call, you are the one who is obligated to deliver the stock if the stock rises above the strike price. Of course, this is just logical. The person who bought the call from you has the right, *not* the obligation, to buy the stock from you (if the call is ITM, that is, greater than the strike price).
  - (b) You're “covered” from unlimited risk in the eventuality that the call buyer could exercise you because you already own the stock, which you would have to deliver if you are exercised. The word

“covered” only means that you are protected from unlimited risk. Had you sold the call option naked, then you would have been exposed to unlimited risk.

Remember what you’re doing here:

Profile	Description	Risk	Reward	Breakeven
/\	Buy stock	Purchase price	Unlimited to the upside	Purchase price
/\ \	Sell call	Unlimited to the upside	Limited to the call premium received	Strike price plus call premium paid
/ \	Covered call	Cost of stock less call premium received	Limited to the call premium received plus the call strike price less the stock price paid	Stock price paid less the call premium received

### Example 5.3 A covered call

Let’s say BORT is trading at \$28.10 on March 27. The 30 strike calls are trading at 0.85.

We want to sell eight calls but have to be covered. How many shares do we need to buy to cover the calls we want to sell?

$$8 \times 100 = 800 \text{ shares}$$

Here are the steps:

- |                                               |          |
|-----------------------------------------------|----------|
| 1. Buy 800 BORT shares at \$28.10:            | \$22,480 |
| 2. Sell 8 BORT 30 strike April calls at 0.85: | \$680    |
| 3. Net investment:                            | \$21,800 |

Let’s take a closer look at what we’ve done here and see what happens in various scenarios:

#### Scenario 1—Stock falls to \$0.00

Stock now at \$0.00	loss	0.00 – 28.10 =	-28.10
Short calls expire worthless	profit	0.85	0.85
	Total loss		<b>27.25</b>

**Scenario 2—Stock falls to \$25.00**

<b>Stock now at \$25.00</b>	loss	$25.00 - 28.10 =$	-3.10
<b>Short calls expire worthless</b>	profit	0.85	0.85
	<b>Total loss</b>		<b>2.25</b>

---

**Scenario 3—Stock falls to \$27.25**

<b>Stock now at \$27.25</b>	loss	$27.25 - 28.10 =$	-0.85
<b>Short calls expire worthless</b>	profit	0.85	0.85
	<b>Break-even</b>		<b>0.00</b>

---

**Scenario 4—Stock remains at \$28.10**

<b>Stock now at \$28.10</b>	→	$28.10 - 28.10 =$	0.00
<b>Short calls expire worthless</b>	profit	0.85	0.85
	<b>Total profit</b>		<b>0.85</b>

---

**Scenario 5—Stock rises to \$30.00**

<b>Stock now at \$30.00</b>	profit	$30.00 - 28.10 =$	1.90
<b>Short calls expire worthless</b>	profit	0.85	0.85
	<b>Total profit</b>		<b>2.75</b>

---

**Scenario 6—Stock rises to \$30.95**

<b>Stock now at \$30.95</b>	profit	$30.95 - 28.10 =$	2.85
<b>Short calls sold</b>	profit	0.85	0.85
<b>Short calls exercised at \$30.00</b>	loss	$30.00 - 30.95$	-0.95
	<b>Total profit</b>		<b>2.75</b>

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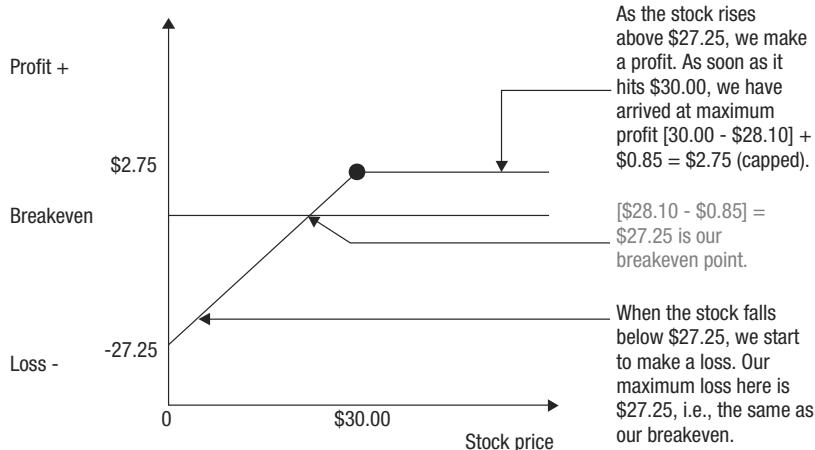
**Scenario 7—Stock rises to \$35.00**

<b>Stock now at \$35.00</b>	profit	$35.00 - 28.10 =$	6.90
<b>Short calls sold</b>	profit	0.85	0.85
<b>Short calls exercised at \$30.00</b>	loss	$30.00 - 35.00$	-5.00
	<b>Total profit</b>		<b>2.75</b>

---

We can summarize our BORT covered call at expiration as follows:

**Diagram 5.3 ● BORT covered call.**



There are a couple of important things to realize about the trade in Example 5.3:

- The strike price of the call we sold is higher than the price we paid for the stock.
- Having our calls exercised wasn't a problem because we already owned the stock at a lower purchase price. This meant we made a profit on the stock (because the call strike was higher than what we originally paid for the stock) and also got to keep the entire call premium.

The summary of the BORT April 30 covered call risk profile is as follows:

<b>Max risk</b>	[stock price paid – call premium]	$28.10 - 0.85 =$	<b>27.25</b>
<b>Breakeven</b>	[stock price paid – call premium]	$28.10 - 0.85 =$	<b>27.25</b>
<b>Max reward</b>	[call strike – stock price paid] + call premium	$30.00 - 28.10 + 0.85 =$	<b>2.75</b>
<b>Initial yield</b>			<b>3.02%</b>
<b>Max yield</b>			<b>9.79%</b>

What would happen if we had written the 25 strike call when BORT was trading at \$28.20? In other words, what happens if we write an ITM covered call?

Assuming the 25 strike April calls trade at 3.55, here's what would happen:

<b>Max risk</b>	[stock price paid – call premium]	28.10 – 3.55 =	<b>24.55</b>
<b>Breakeven</b>	[stock price paid – call premium]	28.10 – 3.55 =	<b>24.55</b>
<b>Max reward</b>	[call strike – stock price paid] + call premium	25.00 – 28.10 + 3.55 =	<b>0.45</b>
<b>Initial yield</b>			<b>12.63%</b>
<b>Max yield</b>			<b>1.60%</b>

#### Covered call comparison

	<b>30 strike (OTM)</b>	<b>25 strike (ITM)</b>
<b>You pay</b>	28.10 – 0.85 = 27.25	28.10 – 3.55 =
<b>Max risk</b>	28.10 – 0.85 = 27.25	28.10 – 3.55 =
<b>30 strike (OTM)</b>		<b>25 strike (ITM)</b>
<b>Breakeven</b>	28.10 – 0.85 = 27.25	28.10 – 3.55 =
<b>Max reward</b>	30.00 – 28.10 + 0.85 = 2.75	25.00 – 28.10 + 3.55 =
<b>Initial yield</b>	3.02%	<b>12.63%</b>
<b>Max yield</b>	9.79%	<b>1.60%</b>

By trading an ITM covered call, the chief benefit is that of more cushion to your breakeven point. Here the ITM covered call gives you 2.80 more cushion. The initial yield looks promising too, doesn't it? A whopping 12.63 percent compared to the OTM initial yield of only 3.02 percent. However, look closer and see what the maximum yield on the trade is, and you'll start to realize that, despite the high initial yield, your maximum yield on the ITM covered call is only 1.60 percent. This is because you're obligated to sell the stock at \$25.00, yet you bought the stock for \$28.10. That's a 3.10 immediate loss on your trade. You sold those ITM calls for 3.55, giving you a maximum profit for the trade of only 0.45.

Compare these figures to the OTM covered call, and we can see that the OTM covered call gives us much more scope to the upside with an attractive 9.79 percent maximum yield. Even the 3.02 percent initial yield is attractive. Do you realize that if you made 3.19 percent every month that would translate to compounded yield of more than 42 percent per annum?

If we had tried to choose the 35 OTM strike, we'd see that the calls were only trading at 0.10 on the bid (remember, we sell at the bid), and that wouldn't be worth our while, so the optimum strike for a BORT March covered call is the 30 strike.

Remember, the reason for getting into a covered call is because you're bullish. You don't mind having a capped upside because it's a short-term income trade lasting only about one month.

## Comparing the Risk of a Covered Call to Selling a Naked Put

### Example 5.4 Using real prices

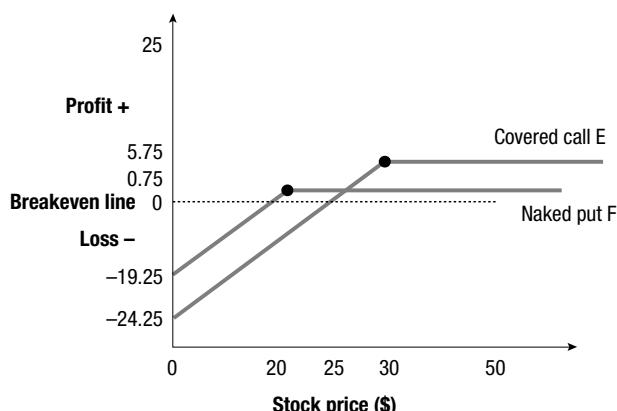
**E** Covered call—Buy the stock for \$25 and sell the May 2012 30 strike call for 0.75.

**F** Naked put—Sell the May 2012 20 put for 0.75.

	Covered call (E) (strike 30)	Naked put (F) (strike 20)
<b>You pay/receive</b>	Stock price – call premium: <b>25 – 0.75 = 24.25 (you pay)</b>	Put premium received: <b>0.75 (you receive)</b>
<b>Risk</b>	Stock price – call premium received: <b>25 – 0.75 = 24.25</b> Risk of 24.25 is 100% of your total cost.	Put strike price less put premium received: <b>20 – 0.75 = 19.25</b> Risk of 19.25 is more than 25 times what you received for the put premium.
<b>Maximum reward</b>	Limited to the call premium received, plus the call strike price less the stock price paid: <b>0.75 + 30 – 25 = 5.75</b> You receive this maximum reward only if the stock price appreciates to \$30 or more at expiration. This represents a maximum return on maximum risk of 23.7%, but the stock must reach \$30 at expiration for this to happen.	Limited to the put premium received: <b>0.75</b> Provided the stock remains above \$20, you will receive 0.75 as your maximum reward. You didn't have to put any money down for this trade, but you did have to provide liquid funds in your account as margin for the trade. Your return on maximum risk is only 3.9%, but the stock has to plummet to below \$19.25 for you to start to lose money.
<b>Break-even</b>	Stock price – call premium received: <b>25 – 0.75 = 24.25</b>	Put strike – put premium received: <b>20 – 0.75 = 19.25</b>

<b>Comment</b>	As you can see, a straightforward comparison can be a little misleading, and although these two strategies share the same shape of risk profile, they actually require totally different risk perspectives from the trader. A covered call trader will not necessarily fancy naked puts and vice versa.	The danger with both these strategies is the stock plummeting. For this reason, you should never trade them before a major news item is due out on the stock (for example, earnings). Furthermore, these strategies should only be played in up-trending markets.
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**Chart 5.2.1** ● Covered call compared with naked put.



We now need to compare different covered calls so we can analyze the best way to play this strategy. The thing with options is that you have so much choice in terms of exercise prices and expiration dates.

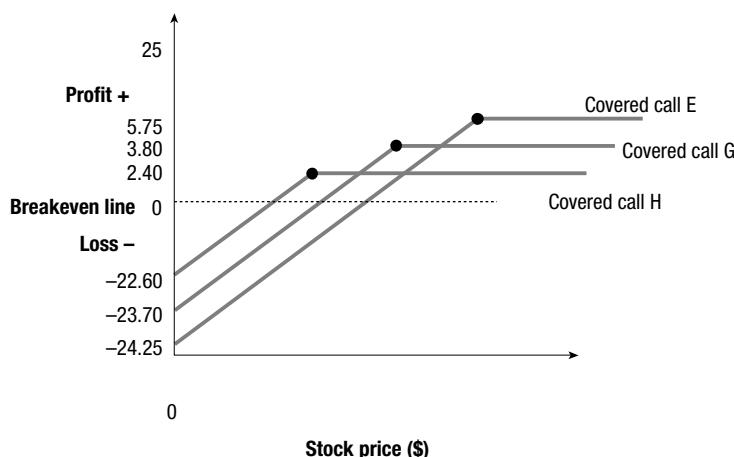
Let's compare covered call E with another two, G and H. There's no room for maneuver on the expiration dates; we don't go beyond one month unless it's by just a week or so.

- E. **Covered call**—Buy the stock for \$25 and sell the May 2012 30 strike call for 0.75.
- G. **Covered call**—Buy the stock for \$25 and sell the May 2012 27.50 strike call for 1.30.
- H. **Covered call**—Buy the stock for \$25 and sell the May 2012 25 strike call for 2.40.

	<b>Covered call (E)</b>	<b>Covered call (G)</b>	<b>Covered call (H)</b>
<b>You pay/ receive</b>	Stock price – call premium: <b>25 – 0.75 = 24.25 (you pay).</b>	Stock price – call premium: <b>25 – 1.30 = 23.70 (you pay).</b>	Stock price – call premium: <b>25 – 2.40 = 22.60 (you pay).</b>
<b>Risk</b>	Stock price – call premium received <b>25 – 0.75 = 24.25.</b> Risk of 24.25 is 100% of your total cost.	Stock price – call premium received: <b>25 – 1.30 = 23.70.</b> Risk of 23.70 is 100% of your total cost.	Stock price – call premium received: <b>25 – 2.40 = 22.60.</b> Risk of 22.60 is 100% of your total cost.
<b>Maximum reward</b>	Limited to the call premium received, plus the call strike price less the stock price paid: <b>0.75 + 30 – 25 = 5.75.</b> You receive this maximum reward only if the stock price appreciates to 30 or more at expiration. This represents a maximum return on maximum risk of 23.7%, but the stock must reach \$30 at expiration for this to happen.	Limited to the call premium received, plus the call strike price less the stock price paid: <b>1.30 + 27.50 – 25 = 3.80.</b> You receive this maximum reward only if the stock price appreciates to 27.50 or more at expiration. This represents a maximum return on maximum risk of 16%, but the stock must reach \$27.50 at expiration for this to happen.	Limited to the call premium received, plus the call strike price less the stock price paid: <b>2.40 + 25 – 25 = 2.40.</b> You receive this maximum reward only if the stock price remains at 25 or more at expiration. This represents a maximum return on maximum risk of 10.6%, but the stock must be at \$25 at expiration for this to happen.
<b>Interim reward</b>	If the stock remains at its current level of \$25, what are our respective yields? Because we are presuming there is no uplift in the stock price whatsoever, the calculation is simply the call premium received divided by the maximum risk of the trade.		
	<b>(0.75/24.25) = 3.1%</b>	<b>(1.30/23.70) = 5.5%</b>	<b>(2.40/22.60) = 10.6%</b>

	<b>Covered call (E)</b>	<b>Covered call (G)</b>	<b>Covered call (H)</b>
<b>Breakeven</b>	Stock price – call premium received: <b>25 – 0.75 = 24.25</b>	Stock price – call premium received: <b>25 – 1.30 = 23.70</b>	Stock price – call premium received: <b>25 – 2.40 = 22.60</b>
<b>Comment</b>	<p>Which one would you choose? Well, there is no right or wrong answer per se, but remember why you would choose a covered call strategy. It's because you believe the stock will appreciate in value steadily over the medium term.</p> <p>Bearing this in mind, H doesn't fit in because you're not allowing for any of the expected rise in the stock value. You're then left between E and G. If you're anticipating a large move to the upside before expiration, then E is the better choice because your maximum reward is higher. If you're more conservative, then G is the better choice because your risk and breakeven are lower (as is your maximum profit).</p>		

**Chart 5.2.2 ● Covered calls E, G, and H (not to scale).**



## How to Improve the Covered Call

The slight weakness with a covered call is the risk profile to the downside. I generally don't like to see that diagonal line going all the way down, although with a covered call that diagonal line element only represents the actual stock risk profile as opposed to a leveraged options position. Generally, we should trade only covered calls on up-trending stocks. However, up-trending stocks often have low volatility and low call premiums, making them unattractive as an income strategy. That lures many traders into the higher volatility, riskier stocks with higher call premiums. If you're that type of trader and can't resist the added

risk, you should consider some serious downside protection. By “serious” I mean more protection than a stop, which won’t protect you from a severe gap down.

So how do you suppose you can cap a catastrophic risk on the downside? The answer is to buy a protective put. This is an advanced strategy, outside the scope of this book, known as a collar. There are several ways to play a collar but for now, we just look at the protective put option as an additional leg to the covered call.

If you’re a fan of trading covered calls but would like to have some protection on the downside, then you might want to look at this approach:

- Step 1** Understand the context of your trade and how long you’re looking to hold the stock for (say, six months).
- Step 2** Buy the stock.
- Step 3** Sell the calls on a monthly basis.
- Step 4** Buy a protective put for half the period of time you’re looking to hold the stock for.

What you’re doing here is akin to a finance deal. You’re buying an asset, financing it (by selling calls every month), and insuring the transaction (by buying the protective put). I suggest insuring the deal for only half your expected investment time frame because the bought put will increase your breakeven point, maybe excessively if you buy the put with too long to expiration. By the time the put approaches expiration (say, in three months) you should be able to tell if your stock is behaving in the way you anticipated, and if it’s weaker than you thought, you might want to reconsider your analysis on the stock.

Which put strike price do you buy? This depends on how much insurance you’re looking for. For me, this put is insurance against a calamity, so I would choose a strike price around a clearly defined support area, which I’d identify beforehand. Generally this will be below the current stock price. You must plan your trades and identify the areas of support and resistance that concur with the time frame you are trading. Every trade is a business transaction, and you should plan each one with the same kind of due diligence. Good trading and investing is all about stacking the probabilities in your favor. Pre-planning enables you to take the right approach.

## Warning!

The net result of buying the protective put has the effect of capping your downside until the put expires. However, the three-month protective put is likely to be more expensive than the one-month call you're selling. This means that this is a strategy that requires ongoing maintenance (that is, you need to be selling the calls every month for at least the period of the bought put in order for it to make financial sense). This is why you need to assess your context for placing the trade in the first place.<sup>2</sup>

## The Collar (or Protected Buy-Write)

The collar is designed to produce an extremely low-risk strategy where, in certain cases, the trader can even enjoy a virtually riskless trade.<sup>3</sup> It may sound too good to be true, but it is possible—although I recommend that you enter in two separate orders for buying the stock and trading the calls and puts. Floor traders do not like the idea of you successfully executing a trade like this, even if the potential returns aren't spectacular.

For the strategy to work in this way, it needs to be a long-term strategy, with the options expiring at least one year out, that is, Long-term Equity AnticiPation Securities (LEAPs). LEAPs are basically long-term expiration options.<sup>4</sup>

Here's how such a strategy would work:

- |                                                 |                                                        |
|-------------------------------------------------|--------------------------------------------------------|
| 1. Buy the stock.                               | <input checked="" type="checkbox"/> Buy the asset.     |
| 2. Buy LEAP puts very close to the stock price. | <input checked="" type="checkbox"/> Insure it.         |
| 3. Sell LEAP calls above the stock price.       | <input checked="" type="checkbox"/> Finance the trade. |
- 

<sup>2</sup> An alternative to this is if you trade a traditional collar. A traditional collar is a long-term trade, best suited to in excess of a year until expiration. It involves buying the stock (or going long a future), selling a long-term OTM call option, and buying the same expiration long-term put option very close to the money (that is, as close to the stock price as possible). In this way, it is actually possible to create a technically risk-free strategy albeit with limited upside.

<sup>3</sup> The risk-free position generally applies only to the position at expiration.

<sup>4</sup> Equity LEAPs are long-dated options on common stock or ADRs of companies that are listed on securities exchanges or trade over-the-counter. Equity LEAPs expire in approximately two to three years from the date of initial listing; equity LEAPs roll into the standard option after the May, June, or July expiration depending on whether the standard option associated with the LEAP is on the January, February, or March expiration cycle.

**Collar****The Art of Creating a Successful Collar****Risk**

For a “riskless” trade,<sup>5</sup> you need to ensure that the call premium you receive less the put premium you pay, plus the stock price you pay, less the put strike price is either zero or negative. In this way, your risk is limited as follows:

$$[\text{put premium paid} - \text{call premium received}] + [\text{stock price} - \text{put strike}]$$

If this equation gives you a zero or negative figure, then you have a riskless trade.

**Reward**

Your maximum reward for a collar is limited to the call strike price less the put strike price less the risk of the trade (as described previously).

$$[\text{call strike price}] - [\text{put strike price}] - \text{risk of trade}$$

**Breakeven**

$$\text{Stock price paid} - [\text{call premium received} - \text{put premium paid}]$$

**Likely Returns and When to Trade a Collar**

Don’t expect massive returns if you’re looking for a zero- or low-risk strategy. There’s always a trade-off between risk and reward, and this is also the case for collars. In my experience and as a rule of thumb, you can certainly find high volatility stocks to yield a maximum return in excess of 20 percent over 18 months for a “zero-risk” collar. If you want a guaranteed minimum return, then your maximum upside will be reduced. Obviously, the more risk you’re willing to take on, the higher your maximum upside will be.

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<sup>5</sup> This does not take into account the opportunity cost of money.

The criteria for finding appropriate stocks to collar are

- High volatility
- LEAPs over one year till expiration
- Stock prices at strong support levels

Collars are particularly useful when you cannot afford a loss on a trade but you'd still like to give yourself a chance of returns in the markets. It is hard to find a zero-risk collar with expirations of less than one year. Around 18 months to expiration is optimal and gives you a chance to find the appropriate stocks. You must accept that this is a trade, which you cannot unravel long before expiration. Because of the way time value works, your zero-risk profile on the collar only reveals itself when you are close to expiration. Even if the stock appreciates beyond the call strike price, then it is unlikely that you'll be exercised with more than one month left to expiration.

#### **Example 5.4a**

We're going to create a collar for a well-known stock as follows:

The stock is at \$19.61 and we're going to select the January 2014 strikes for our options.

We're going to do the following:

- 
- |                                                            |                      |
|------------------------------------------------------------|----------------------|
| 1. Buy the stock at the ask (\$19.61).                     | ✓ Buy the stock.     |
| 2. Buy the January 2014 20 strike put at the ask (7.10).   | ✓ Insure it.         |
| 3. Sell the January 2014 25 strike call at the bid (6.40). | ✓ Finance the trade. |
- 

#### **“Low-risk” collar risk profile**



**“Low risk” collar Example 5.4a**

<b>Net debit</b>	20.31
<b>Maximum risk</b>	0.31
<b>Maximum reward</b>	4.69
<b>Breakeven</b>	20.31
<b>Maximum yield on risk</b>	1,512.9%
<b>Maximum yield on net debit</b>	23.1%
<b>Minimum yield on risk</b>	N/A*
<b>Minimum yield on net debit</b>	

*Note that the maximum risk, reward, and breakeven figures are calculated in terms of the expiration position.*

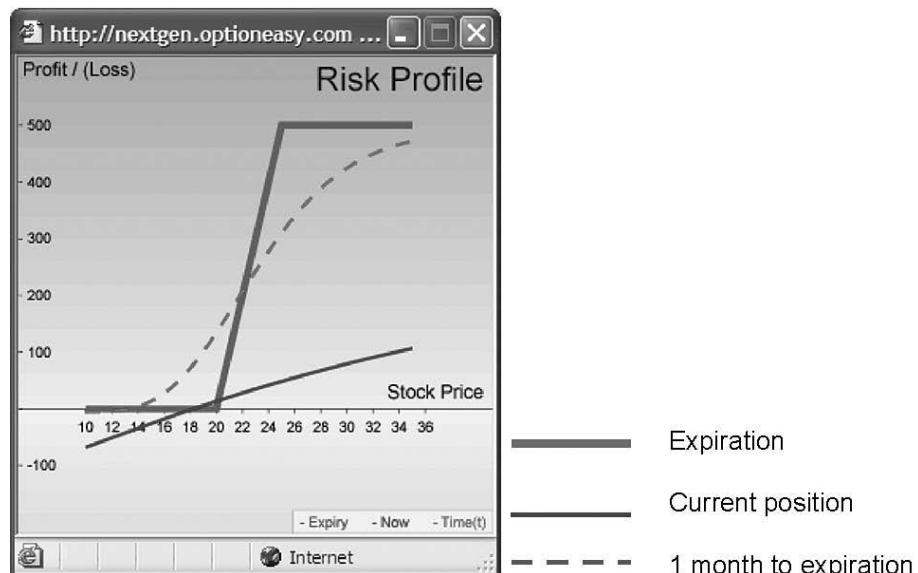
\* Minimum yields here would be negative.

As you can see, our maximum yield in terms of risk is enormous (1,512.9 percent) although our maximum yield on our net debit (that is, the money that we’re spending on this trade) is only 23.1 percent. On an annual basis, this would only be 12.62 percent per annum, but the stock only has to move a little over five points and we’re taking very little risk here indeed (just 1.5 percent of our total net debit).

**Example 5.4b**

Note that we took the prices that the market would give us (that is, buying at the ask and selling at the bid). Even so, our risk was very low at 0.31. With a limit order, we could realistically extinguish that 0.31 of risk by combining the options trades at a net debit of 0.39 instead of the current call bid (6.40) and put ask (7.10), which gives a net debit of 0.70.

The trade becomes risk-free, although remember that we still have to hold the stock during this time. Our “Current” risk profile Position is negative, but we can see over time that it will migrate upward toward our expiration risk curve. The middle risk curve is how our risk profile looks with just one month left to expiration. Notice how it gets closer to the expiration risk curve.

**“Zero risk” collar risk profile****“Zero risk” collar example 5.4b**

<b>Net debit</b>	20.00
<b>Maximum risk</b>	0.00*
<b>Maximum reward</b>	5.00
<b>Breakeven</b>	N/A
<b>Maximum yield on risk</b>	N/A
<b>Maximum yield on net debit</b>	22.6%
<b>Minimum yield on risk</b>	N/A
<b>Minimum yield on net debit</b>	N/A

\* We have ignored commission here.

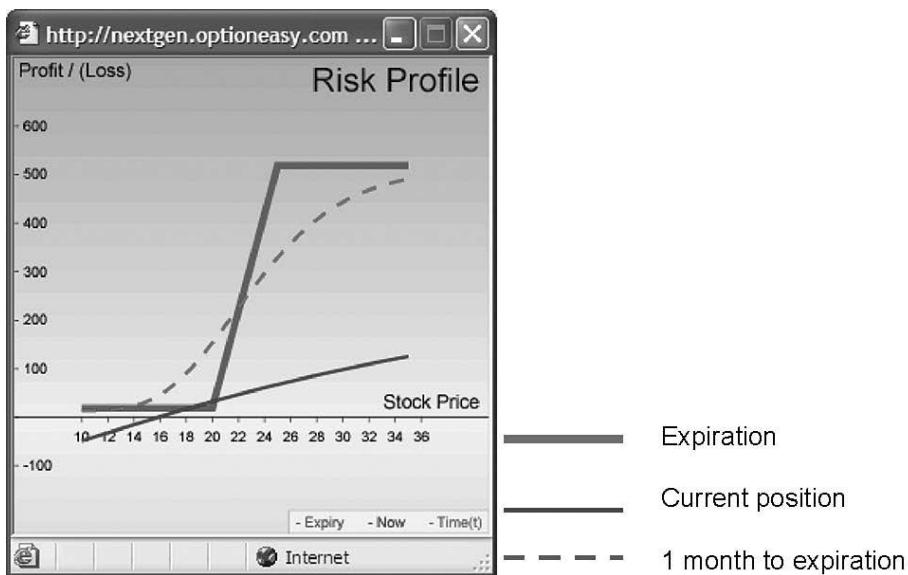
**Example 5.4c**

Finally, let's take a look at what would happen if we were able to set a limit order based on the “last prices” achieved:

- |                                                  |                      |
|--------------------------------------------------|----------------------|
| 1. Buy the stock at \$19.61.                     | ✓ Buy the stock.     |
| 2. Buy the January 2014 20 strike put at 7.00.   | ✓ Insure it.         |
| 3. Sell the January 2014 25 strike call at 6.80. | ✓ Finance the trade. |

In other words, we're going to enter in a limit order to buy the stock at \$19.61 and combine the bought put and sold call at a net debit limit of 0.20.

#### “Guaranteed return” collar risk profile



Notice how the risk profile (expiration) is entirely above the breakeven line. This signifies that this is not only a “zero-risk” trade but also one where we can have a small guaranteed positive return if we are filled.

#### “Guaranteed return” collar Example 5.4c

<b>Net debit</b>	19.81
<b>Maximum risk (none here)</b>	(0.19)*
<b>Maximum reward</b>	5.19
<b>Breakeven</b>	N/A
<b>Maximum yield on risk</b>	N/A
<b>Maximum yield on net debit</b>	23.70%
<b>Minimum yield on risk</b>	N/A
<b>Minimum yield on net debit</b>	1.00%

*Note that the maximum risk, reward, and breakeven figures are calculated in terms of the expiration position.*

\* Brackets denote that there is no risk (or negative risk) and that our minimum guaranteed return would be 0.19 at expiration.

It is highly unlikely that we'll be exercised on the shorted call when there is more than one month left to expiration.

## Futures

There are two major differences trading collars, synthetic calls, and covered calls on stocks as compared to futures.

- (a) Futures options are European-style options—that is, they can only be exercised at expiration and not beforehand.
- (b) You don't actually pay money out of your account when you take a long position on a future. This means that you can trade a collar at little or no net debit whatsoever, or even in special circumstances at a net credit.

The conclusion is that collars with futures options can be an exceptionally useful strategy if you can find the appropriate prices to make it work.

## Chapter 5 Major Learning Points

In this chapter, you learned about synthetic calls and covered calls. Let's compare the two strategies:

	Synthetic call	Covered call
Strategy	 Buy stock + Buy put = Synthetic call	 Buy stock + Sell call = Covered call
Buy stock + buy put = synthetic call      Buy stock + sell call = covered call		
Outlook	<i>Bullish</i> , although you are insuring your stock purchase.	<i>Mildly bullish</i> . You expect a steady rise.
Rationale	<ul style="list-style-type: none"> <li>• To buy a stock for the medium or long term with the aim of underwriting your downside in the meantime.</li> </ul> <ul style="list-style-type: none"> <li>• If the stock price rises more than the cost of the bought put option, you will make profit.</li> </ul>	<ul style="list-style-type: none"> <li>• To buy a stock for the medium or long term with the aim of capturing monthly income by selling calls every month. This is like collecting rent for holding the stock and will have the effect of lowering your cost basis of holding the stock.</li> </ul> <ul style="list-style-type: none"> <li>• If the stock rises, your short call may be exercised, in which case you will make some profit. If the stock falls, your sold call will expire worthless, you will keep the premium, thus enabling you to have bought the stock cheaper (because you offset the received premium against the price you paid for the stock).</li> </ul>

	Synthetic call	Covered call
	<ul style="list-style-type: none"> <li>If the stock falls, you will lose money, but your losses will be capped at the level of the put strike price.</li> </ul>	
<b>Net position</b>	<ul style="list-style-type: none"> <li>This is net debit transaction.</li> </ul>	<ul style="list-style-type: none"> <li>This is a net debit transaction because you are paying for the stock and only taking in a small premium for the sold call options. You can increase your yield by purchasing the stock on margin, thereby doubling your yield if you use 50% margin.</li> </ul>
	<ul style="list-style-type: none"> <li>Your risk is limited if the stock falls.</li> </ul>	<ul style="list-style-type: none"> <li>Your risk is the price you paid for the stock less the premium you received for the call.</li> </ul>
<b>Effect of time decay</b>	<ul style="list-style-type: none"> <li>Time decay is harmful to the value of the put you bought.</li> </ul>	<ul style="list-style-type: none"> <li>Time decay is helpful to your trade here because it should erode the value of the call you sold. Provided that the stock does not reach the strike price at expiration, you will simply retain the entire option premium for the trade, thus reducing your original cost of buying the share. If the stock price does reach the strike price of the call, then you will either be exercised early, in which case you'll sell the stock at the higher price (that is, the strike price), or you'll be exercised at expiration, where the same thing will happen.</li> </ul>
<b>Safest time period to trade</b>	<ul style="list-style-type: none"> <li>Buy the puts with expirations with at least half the period you want to invest in the stock.</li> </ul>	<ul style="list-style-type: none"> <li>Sell the calls on a monthly expiration basis.</li> </ul>

We also learned how to improve a covered call and reduce our risk, while accepting that our maximum upside would be reduced too. Collars are advanced strategies, which require trading experience to achieve the appropriate execution. This is why we suggest separating the options order entries from those of buying the stock. Example 5.4 (parts a, b, and c) is included to demonstrate the flexibility of using options to hedge your positions and achieve minimum levels of returns.

Because the following chapter covers the Greeks, we haven't yet covered how the various sensitivities respond to the strategies. Please read the next chapter, and then you can return to the following footnoted table.<sup>6</sup>

<sup>6</sup> Greek	Synthetic Call	Covered Call
<b>Delta</b>	Delta assumes the same shape as that for the delta of a long call. The stock delta is more powerful than the put delta, and the net profile follows that of a simple call option. Therefore, the synthetic call delta increases as the stock price rises, demonstrating that a higher stock price increases the value of the synthetic call position.	Delta (speed) is positive and falls to zero as the asset price rises above the strike price. The lower the stock price, the higher delta is (remember for one contract delta's maximum is +1 and minimum is -1). This indicates that as the stock price increases, so does the value of the covered call. As the stock price rises through past the strike price, delta decreases in value and effectively rests at zero when the stock price exceeds the strike price plus the sold call premium. This mirrors the way in which a covered call has a maximum upside at this level, no matter how far the stock increases.
<b>Gamma</b>	Gamma (acceleration) is always positive with this position (because you are a net buyer of options) and peaks when the position is ATM.	Gamma is always negative with this position (because you are a net seller of calls) and peaks inversely when the position is ATM.
<b>Theta</b>	Because theta is irrelevant for stock positions (you buy a stock in perpetuity, therefore there is no time decay), the theta position here solely reflects that of the bought put option. Therefore, as you'd expect, theta is negative, bottoming at the strike price, indicating that the time decay is hurting the synthetic call strategy, particularly around the strike price.	Theta is positive, illustrating that time decay is helpful to the position. Theta is positive because we have sold premium and peaks around the strike price. As we approach expiration, theta's helpful impact becomes more prominent.
<b>Vega</b>	Volatility is helpful to the position. Vega peaks at the strike price, indicating that small increases in volatility will have the most impact on the synthetic call position at that level.	Vega is negative, illustrating that volatility is harmful to the position. Vega bottoms at the strike price, indicating that increased volatility is most harmful to the covered call position in that price range.
<b>Rho</b>	Higher interest rates are harmful to the position. Rho is negative and becomes more negative the further the stock price falls.	Rho is negative, illustrating that higher interest rates would be harmful to the position. Rho becomes more negative the further the stock price rises.



## chapter 6

# An Introduction to the Greeks

The Greeks are simply sensitivities to options risk characteristics. The names are taken from actual Greek words. To understand why options have sensitivities to various factors, go back to the original definition of an option:

- The right, not the obligation
- To buy or sell an asset
- At a fixed price
- Before a predetermined date

Remember the seven factors that affect an option's premium:

- (i) Type of option (call or put)
- (ii) The underlying asset price
- (iii) The strike price of the option
- (iv) The expiration date of the option
- (v) The volatility of the underlying asset
- (vi) The risk-free rate of interest
- (vii) Dividends payable and stock splits

If these factors affect the pricing of an option, then it stands to reason that option premiums must be sensitive to them. We can distill this further by highlighting the following sensitivities:

Factor affecting option premium	Sensitivity of option to...
Underlying asset price →	...Speed of the underlying asset price movement
Expiration date →	...Time decay
Volatility of underlying asset →	...Volatility
Risk-free rate of interest →	...Interest rates

Each sensitivity has a corresponding “Greek”:

Sensitivity of option to...	Greek
Speed of underlying asset price movement →	Delta Gamma*
Time decay →	Theta
Volatility →	Vega
Interest rates →	Rho

\* Gamma measures the option sensitivity to delta, which we will discuss.

## The Greeks

Greek		Sensitivity to...
<b>Delta</b>	$\Delta$	Change in option price relative to change in underlying asset price (that is, <b>speed</b> )
<b>Gamma</b>	$\Gamma$	Change in option delta relative to change in underlying asset price (that is, <b>acceleration</b> )
<b>Theta</b>	$\Theta$	Change in option price relative to change in time left to expiration (that is, <b>time decay</b> )
<b>Vega</b>	$\kappa$	Change in option price relative to the change in the 'asset's volatility (vega is not a Greek letter, but is normally included among the "Greeks") (that is, <b>historical volatility</b> )
<b>Rho</b>	$\rho$	Change in option price relative to changes in the risk-free interest rate (that is, <b>interest rates</b> )

A simple summary of the Greeks defines and explains them as follows:

Greek	Definition	Comment
<b>Delta</b>	Measures the sensitivity of an option price relative to change in underlying asset price (that is, speed). <i>A positive delta means that the options position will become more valuable as the stock price rises. A negative delta means that the options value will increase as the underlying asset's value decreases.</i>	Delta ratio is also known as the hedge ratio. We can view delta as the probability of an option expiring ITM (in-the-money). An ATM (at-the-money) option will have a 50:50 chance of expiring ITM. A call means a delta of 0.5, and a put means a delta of -0.5 (because the put will rise as the stock falls and vice versa).
<b>Gamma</b>	Measures the sensitivity of the option delta relative to the underlying asset price movement (that is, acceleration). Gamma is positive for long call and long put positions and has the same value for equivalent ATM calls and puts. A low gamma means that large shifts in the stock price will be beneficial, whereas a high gamma signifies that even small shifts in the stock price will be beneficial to the options position.	Rate of change of delta—that is, the curvature of delta risk. You can view gamma as the odds of a change in delta. The odds of a change in delta will be highest where there is a turning point in the risk profile chart. So for a long call or put, gamma will peak ATM.
<b>Theta</b>	Measures the sensitivity of the option price relative to change in time left to expiration. <i>For long options positions, theta is usually negative, signifying that time decay hurts the long option position and that the passage of time will reduce the value of that long position.* For combination options trades theta can be positive, showing that time decay can help the spread position (for example, covered calls).</i>	Time decay is fastest during the last 30 days until expiration and when option is ATM.
<b>Vega</b>	Measures the sensitivity of the option price relative to the change in the asset's volatility. <i>Vega is always positive for long options positions and is identical for equivalent ATM calls and puts. A high positive vega signifies that small increases in volatility will be helpful to the options position, whereas a low vega signifies that high volatility will be required to augment the options position.</i>	Historical volatility.

\*The one exception to the rule being with deep ITM put options.

Greek	Definition	Comment
Rho	Measures the sensitivity of the option price relative to changes in the risk-free interest rate. <i>Higher interest rates will be beneficial to calls and detrimental to puts. Also, the longer the time to expiration, the greater value (positive or negative) rho will have, because interest rates need time to bite.</i>	Interest rates.
Zeta	Measures the percentage change in option price per 1% change in implied volatility.	1% implied volatility change.

Let's go through each Greek to make sense from all this.

## Delta $\Delta$

### The Basics

- The delta option is the rate of change of the option price compared with the price movement of the underlying asset price. In other words, delta measures the *speed* of the option price movement as compared with movement of the underlying asset.

$$\text{Delta} = \frac{\text{rate of change in option price}}{\text{rate of change in underlying asset price}}$$

- Delta is the probability of the option expiring ITM. As a general rule, ATM call options have deltas of 0.5. Therefore, for every one dollar the stock moves, the call will move at approximately 0.50 (that is, half the distance of the underlying stock). Inevitably, as the stock price moves away from the ATM position, the delta value will change too, away from 0.50.
- Because U.S. stock options contracts represent 100 shares, the delta value of an ATM call option is represented as 50 instead of 0.5. One individual share has a delta of one—because a contract represents 100 shares,  $[100 \times 0.5 = 50]$ .
- A delta of  $+/-50$  is saying the option has a 50 percent chance of expiring ITM. This makes complete sense because ATM options have a 50 percent chance of expiring in or out-of-the-money (OTM).

- ATM = +/- 50 deltas—that is, moves at half the speed of the underlying asset.
- ATM calls have a delta of 0.5, meaning that for every one point the stock rises, the option will increase by 0.5 points.
- ATM puts have a delta of -0.5, meaning that for every one point the stock falls, the option price will increase by 0.5 points.
  - If you buy an ATM call, then you have a delta of 0.5.
  - If you sell an ATM call, then you have a delta of -0.5.
  - If you buy an ATM put, then you have a delta of -0.5.
  - If you sell an ATM put, then you have a delta of 0.5.
  - All bought calls have a positive delta.
- All sold calls have a negative delta.
- All bought puts have a negative delta.
- All sold puts have a positive delta.

**Example 6.1.1**

If you buy 100 shares of AMZN (+100 deltas), you would need to buy two ATM puts (-50 deltas each) for a delta neutral position.

## Why Does Speed Matter?

Delta is important because it is an indication of the leverage in a position. Let's look at an illustration.

**Example 6.1.2**

Imagine taking a long position on a stock; say you buy 100 shares of one stock. Each one dollar your stock rises, you make  $100 \times 1.00 = \$100$ . Each one dollar your stock falls, you lose \$100.

But how would you feel if by buying call options you now make \$300 when your stock rises by \$1.00? Well, you'd feel pretty good until I ask you the question, "How do you feel if you could also lose \$300 for every point the stock falls?" You don't feel quite so good, do you? You might say, "Well, that's what would happen anyway if I had bought 300 shares." And you're quite right. But you'd miss a crucial point here, and that's leverage.

Let's say you bought the stock at \$50.00. To buy 100 shares costs you \$5,000.

And let's compare that to buying the equivalent in call options: one contract (representing 100 shares for U.S. stocks) costs you, say 7.00, for which you'll have to pay a total of \$700. (Remember, with just one contract, it's \$7.00 for each one of those 100 shares that the contract represents.)

And for illustration purposes, let's say also that your delta is 1—that is, for every one point the stock moves, the call option you bought also moves by one point.

If the stock rises to \$55:

- Your shares will increase by \$5.00 per share, and you'll make \$500 in extra profit—a profit of 10 percent.
- Your options will increase by 5.00, and you'll make \$500 in profit—a profit of more than 70 percent.

So far so good, you might say, but let's turn this around and see what would happen if the market went against you and the stock had fallen from \$50 to \$45:

- Your shares will decrease by \$5.00 per share, and you'll lose \$500—a loss of 10 percent. From the \$5,000 you started with, you'd now have \$4,500.
- Your options will decrease by 5.00 and you'll lose \$500—a loss of more than 70 percent. From the \$700 you started with, you now have only \$200.

Can you now see why you might want to do something about the speed of the options price movements and why you might want to offset (or hedge) delta?

Just as you always want enough time to be right when you buy an option, you also want to make sure that modest swings in the stock price aren't causing uncomfortably wild movements in your options position too quickly. This is why you want to hedge delta, or in other words, *slow down the speed of the percentage movement of your position*.

## Delta Neutral Trading

Delta neutral trading is a vast topic in itself. It is a method of trading whereby your position delta on the totality of your spread trade is one where the sum of the deltas equals *zero*. The idea is that this conveys a “hedged” position, whereby the risk is reduced because your position speed is slowed down.

Delta neutral traders do this on the basis that they can continually make profitable adjustments to their trade as the asset price fluctuates. The adjustments (usually selling part of the profitable side) bring the spread trade back to a delta neutral position (that is, where the sum of the deltas for that position equals zero), while also capitalizing on the profitable side of the trade.

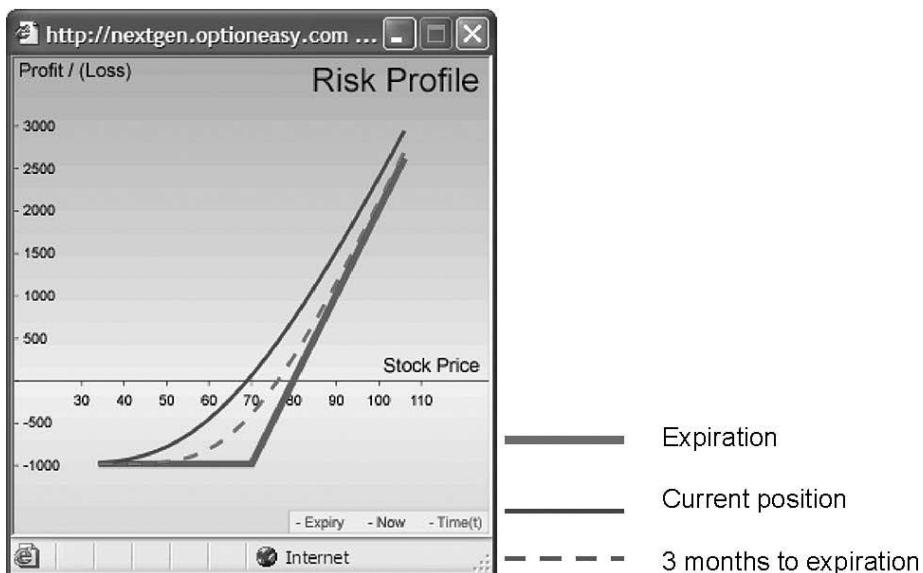
A popular technique is to make the profitable adjustments back to delta neutral when the underlying asset has moved by 20 percent in either direction.

Delta neutral does *not* mean risk free! Deltas are *not* linear, and as the stock price fluctuates, so will your options values and the delta values.

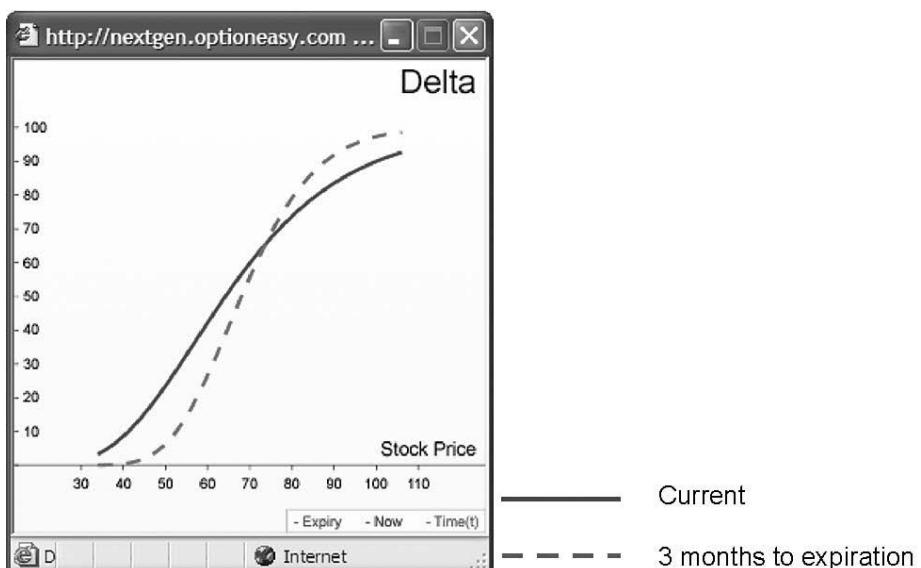
**Example 6.1.3**

Consider a call option for stock YNWA captured on April 20, 2012. Let's say the stock price is \$69, and the January 70 strike 2013 call premium is 9.80.

**Chart 6.1.1** ● Long call risk profile—excludes commission.



**Chart 6.1.2** ● Long call delta profile.



See how delta moves as the stock price moves, and notice how the shorter expiration delta curve is much steeper than the longer expiration delta curve. This means that delta is more sensitive the shorter the term left to expiration.

A good idea, therefore, would be to try to slow down delta to near zero while at the same time retaining the bullish objectives within the trade. To accomplish this, you can sell a higher strike call option with the same expiration date. This would create a bull call spread (see Chapter 7, “Bull Call Spreads and Bull Put Spreads”).

Remember that delta neutral does *not* mean risk free! Deltas are *not* linear.

## Other Points to Remember

- Delta neutral still requires you to manage the time decay.
- Longer-term options will generally have lower deltas than shorter-term options.
- Your position delta on your trade is also known as your *hedge ratio*.
- Delta is principally affected by the time left to expiration and the price of the underlying asset.
- Some futures delta neutral trades can require no margin in certain cases (and with certain brokers).
- With calls, delta increases as the underlying asset price increases. Call deltas are always positive. Note that when you sell a call (naked), your position is delta negative.
- With puts, delta decreases as the underlying asset price decreases. Put deltas are always negative. Note that when you sell a put (naked), your position is delta positive.

Position	Delta (+ or -)	Comment
<b>Buy 100 shares</b>	+100	One share has a delta of 1.
<b>Sell 50 shares</b>	-50	Selling one share gives a -1 delta.
<b>Buy ATM call</b>	+50	One contract represents 100 shares. $100 * 0.5 = +50$
<b>Sell ATM call</b>	-50	
<b>Buy call</b>	+	A long call always has a positive delta. As the stock price rises, so does the call premium. As the stock price falls, so does the call premium.
<b>Sell call</b>	-	A short call always has a negative delta.

Position	Delta (+ or -)	Comment
<b>Buy ATM put</b>	-50	One contract represents 100 shares. $100 \times 0.5 = +50$
<b>Sell ATM put</b>	+50	
<b>Buy put</b>	-	A long put always has a negative delta. As the stock price rises, the put premium falls. As the stock price falls, the put premium rises. This inverse relationship results in a negative delta.
<b>Sell put</b>	+	Short put always has a positive delta.
<b>Deep ITM call</b>	+100 (maximum)	One deep ITM call will move roughly 1 for 1 with the underlying stock. It can never move faster than the underlying stock. If you see numbers higher than this, there must be more than one contract being traded.
<b>Deep OTM call</b>	0	Deep OTM calls have deltas of almost zero, reflecting that they have a small chance of expiring ITM.
<b>Deep ITM put</b>	-100 (maximum)	One deep ITM put will move inversely roughly 1 for 1 against the underlying stock.
<b>Deep OTM put</b>	0	Deep OTM puts will have deltas of almost zero, reflecting that they have a small chance of expiring ITM.
<b>ATM straddle</b>	0	
<b>ATM strangle</b>	0	
<b>Bull spreads</b>	+	Delta is hedged to an extent.
<b>Bear spreads</b>	-	Negative delta is hedged to an extent.

#### Example 6.1.4 Bull call spread

SpreadCo Inc. is currently trading at \$100 per share. If you are bullish, you construct a bull call spread as follows:

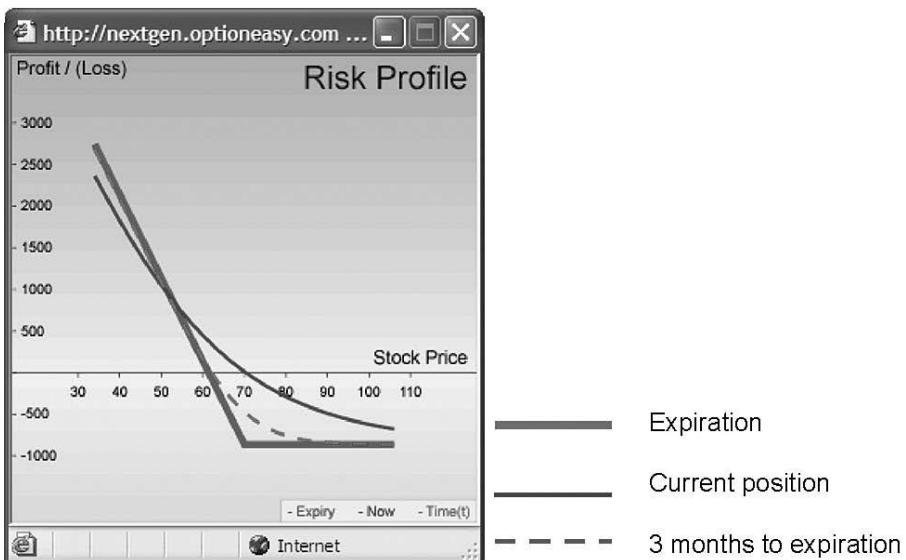
You buy 10 January 100 strike calls and sell 10 January 120 strike calls at the same time.

Buy 10 Jan 100c	Delta =	$10 \times 100 \times 0.5$	=	+500
Sell 10 Jan 120c	Delta =	$10 \times 100 \times (-0.43)$	=	-430 (say)
			<b>Hedge ratio =</b>	<b>+70</b>

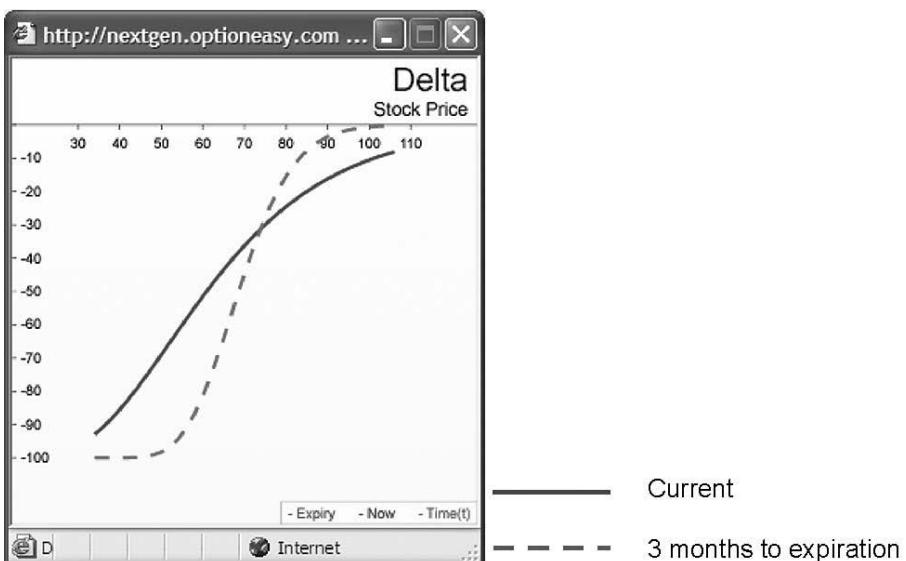
## Delta with Puts

Let's consider the equivalent YNWA example but this time with puts captured on the same date, April 20, 2012. The stock price is \$69, and the 70 strike January 2013 put option is priced at 8.60.

**Chart 6.1.3** ● Long put risk profile.



**Chart 6.1.4** ● Long put delta profile.



Notice how the long put delta profile looks identical to the long call delta profile. The difference is that the long put delta is negative.

## Gamma Γ

Gamma is the rate of change of delta measured against the rate of change in the underlying asset.

In simple terms, gamma is the speed of delta, or the “speed of speed.” The speed of speed is commonly known as *acceleration*.

$$\text{Gamma} = \frac{\text{rate of change in delta}}{\text{rate of change in underlying asset price}}$$

Gamma is significant because it helps the trader measure risk, particularly for delta neutral traders. Gamma effectively demonstrates how quickly the odds are changing of the option expiring ITM. By knowing the gamma of an option, you know how quickly the delta will change and how quickly you should adjust the position in advance of this.

Summary of how gamma behaves:

<b>ATM</b>	Gamma tends to be high when the option is near-the-money (NTM). This means that the delta is highly sensitive (when the option is NTM) to changes in the stock price. In other words, the odds of the option changing from OTM to ITM or vice versa are high when the option is NTM. Therefore, it is logical that ATM options have high gammas.
<b>ITM</b>	When options are deep ITM, delta is close to 1 and in itself is not particularly sensitive to changes in the underlying asset price. Therefore, the gamma of deep ITM options is low.
<b>OTM</b>	Similarly, gamma is low for deep OTM options.
<b>Generally</b>	The gamma for puts and calls is always identical and can be positive or negative.

Mathematically speaking, gamma is the second derivative of delta. Therefore, if delta is a measure of speed, gamma is a measure of acceleration. Unlike the other Greeks, gamma is not a measure of the option price versus another parameter, but rather a measure of how delta moves against changes in the stock price.

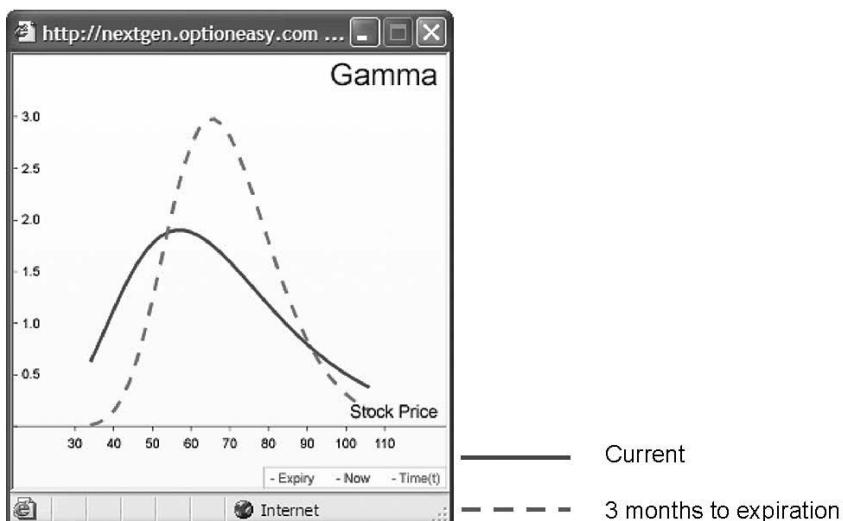
To this end, the gamma for calls and puts is always identical, and gamma can be positive or negative.

Gamma tends to be high when an option is NTM. A high gamma means that delta is highly sensitive to changes in the stock price around its current level (Kolb, 1997).

Some traders like to hedge their gamma positions so that the delta will not spiral out of control. (Remember that gamma is a measure of acceleration, so if the acceleration is contained, then the speed, delta, will at least remain constant). Of course, it is also possible to hedge both gamma and delta simultaneously. As with delta, the gamma of NTM calls and puts rises as you get closer to expiration. For deep ITM or OTM options, gamma will fall dramatically as time to expiration becomes close.

In Chart 6.2.1, you see how the delta of a bought call starts to decelerate toward 1 as the stock price rises. This is an obvious clue as to how the gamma of the same trade will behave; that is, gamma will be lower.

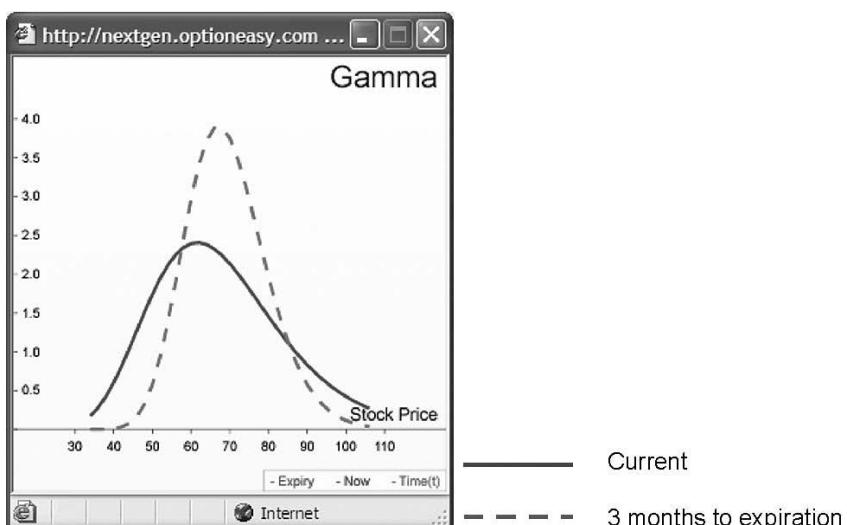
**Chart 6.2.1** ● Long call gamma profile.



The long call gamma is decelerating at its fastest when the stock price is above \$70 (that is, ITM) and continues as the stock price goes deep ITM. Similarly, gamma is extremely low when the stock price is deep OTM, to the left of the chart.

Delta neutral does not necessarily mean gamma neutral and vice versa, but detailed investigation into this concept does not fall within the scope of this book.

**Chart 6.2.2** ● Long put gamma profile.



As you can see, gamma for puts and calls is identical. Please note that the charts are scaled such that the stock price is segmented in intervals of 10, and this chart uses unsmoothed lines.

## To Conclude About Gamma

- Gamma measures how sensitive delta is to changes in the stock (or underlying asset) price.
- By knowing the gamma of an option, you know how quickly the delta will change and how quickly you should adjust the position.
- Gamma is significant because it helps the trader measure risk, particularly for delta neutral traders.
- Gamma tends to be large when the option is NTM. This means that the delta is highly sensitive (when the option is NTM) to changes in the stock price.
- When options are deep ITM, the delta will be close to 1 (for calls) or -1 (for puts) and will not be too sensitive itself to changes in the underlying asset price. Therefore, the gamma of deep ITM options will be low.
- Similarly, gamma will be low for deep OTM options.
- The gamma of a put and a call is always identical and can be positive or negative.

Asset price	Delta	Gamma
ATM	Around 0.5 (calls) or -0.5 (puts)	High
NTM	Around 0.5 (calls) or -0.5 (puts)	High
Deep ITM	Around 1 (high for calls) or -1 ("high" for puts)	Low
Deep OTM	Low	Low

## Theta θ

### Memory Tip

Theta starts with a T and stands for time.

Theta is arguably the most important sensitivity of the Greeks and is certainly on a par with delta.

The characteristic of option prices to change purely as a result of the passage of time is known as *time decay*.

Theta is a measure of how time decay affects the option premium. As such, theta is nearly always negative for bought options.<sup>1</sup> This makes sense because time decay erodes the option value as time to expiration diminishes.

### Example 6.3.1 Time decay

You pay me one dollar for an OTM option with 10 days until expiration.

With each day that passes, let's say the option loses 0.10 of time value. (Please note this is just an illustration. In practice, time decay is not linear.)

If the underlying stock price does not move, the option value will behave as follows:

Day	Option value	Buyer profit	Seller profit
Day 0	1.00		
Day 1	0.90	(0.10)	+ 0.10
Day 2	0.80	(0.20)	+ 0.20
Day 3	0.70	(0.30)	+ 0.30
Day 4	0.60	(0.40)	+ 0.40
Day 5	0.50	(0.50)	+ 0.50
...			
Day 10	0.00	(1.00)	+1.00

Do you see how time decay has helped me (the seller) and hurt you (the buyer)?

### Lesson:

Never buy OTM options with less than one month to expiration unless it forms part of a multi-legged spread trade.

The negative value of theta indicates that as time gets closer to expiration, time decay increases. With options, time decay increases exponentially during the last month before expiration. Put another way, **time value decreases exponentially during the last month before expiration.**

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<sup>1</sup> Theta can be positive for deep ITM puts in certain scenarios.

## How Can You Mitigate Time Decay?

- (i) *Sell off any owned ATM or OTM options with 30 days left to expiration*—Time decay accelerates at its fastest during the last 30 days to expiration. Remember that OTM and ATM options have no intrinsic value, so they must be made up purely of time value. Because we know that time value decreases exponentially during the final month before expiration, it makes sense not to hold onto these options.
- (ii) *Sell options you don't own as an adjustment to existing trades*—We're not talking about creating naked positions here; the sold option is complementary to your existing play (for example, bull and bear spreads).
- (iii) *Buy short-term deep ITM options* (for example, a deep ITM put or deep ITM call will have a big intrinsic value and virtually no time value)—If there is no time value, then it can't decay any further!

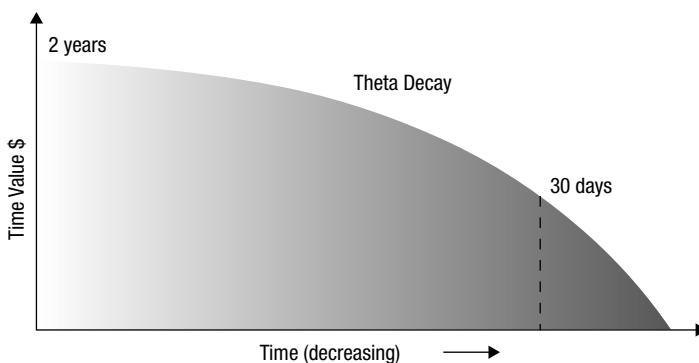
Remember about time value and intrinsic value. Here, we are referring to there being so little time value as a proportion of the option premium because the option is so deep ITM.

Let's look at each one of these points:

- (i) Sell off OTM or ATM options with less than 30 days to expiration.

Diagram 6.3.1 illustrates how theta decay works with options. Notice how the slope falls off at its steepest point during the last 30 days.

**Diagram 6.3.1** ● Time decay.



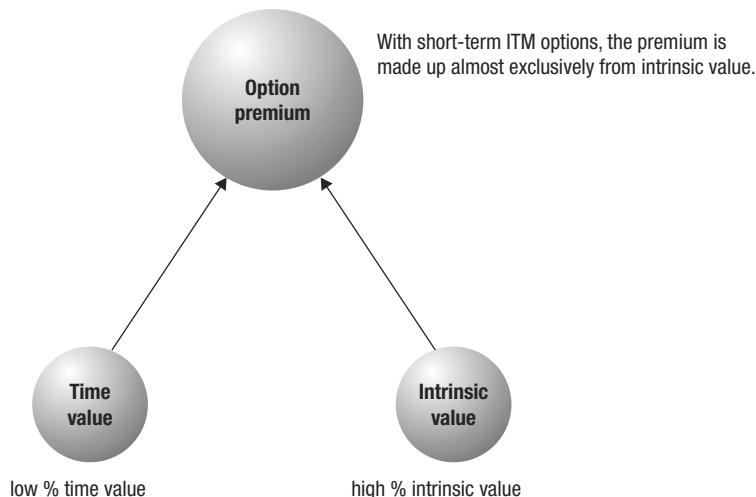
- (ii) Sell options you don't own as an adjustment to existing trades.

We are not advocating selling options naked and exposing yourself to an unlimited risk profile. Many people successfully sell OTM options every month and collect a decent premium. However, if the market suddenly jolts against them and they get exercised, then an entire year or more can be wiped out in one day. The fact remains that selling options naked is not a businessperson's way to trade. Although there are some high-probability mathematical techniques of naked options selling, if your capital can be wiped out that fast when you're not looking, then that's simply not a sensible way to go about your business. It's far better to be able to sleep at night; that way you'll pass the test of longevity and be able to consistently trade and invest for many years even well into your retirement.

- (iii) Buy short-term deep ITM options.

You can mitigate the effects of time decay by buying deep ITM options, because intrinsic value is vastly outweighing time value. If there is little to no time value in the option (as compared with intrinsic value), then your risk exposure to time decay is, by definition, little to none!

**Diagram 6.3.2 ● Time value for deep ITM options.**



In this options series, you see that the stock price is currently \$42.10. Only 18 days remain to the May expiration and just over six weeks remain until the June expiration.

**Question:**

How much time value and intrinsic value is there for the following options?  
For our purposes here, look at the ask:

**Remember:**

- Call option intrinsic value = share price – strike price.
- Call option time value = call option price – intrinsic value.
- Intrinsic value minimum = zero.

Fill in the table that follows:

<b>Call option</b>		<b>Last (\$)</b>	<b>Intrinsic value</b>	<b>Time value</b>
May 12.5	2012	30.20	42.10 – 12.50	30.20 – 29.60 =
			<b>= 29.60</b>	<b>0.60</b>
May 15	2012	27.80		
May 17.5	2012	25.30		
May 20	2012	22.80		
May 22.5	2012	20.30		
May 25	2012	18.00		
May 40	2012	5.50		
June 20	2012	23.20		
June 22.5	2012	20.90		
June 25	2012	18.70		
June 40	2012	8.20		

**Answers:** (Take note of the percentage of the entire option premium, which is taken up by intrinsic or time value as the option gets nearer the money.)

<b>Call option</b>		<b>Last (\$)</b>	<b>Intrinsic value</b>	<b>Time value</b>		
May 12.5	2012	30.20	29.60	98%	0.60	2%
May 15	2012	27.80	27.10	97.5%	0.70	2.5%
May 17.5	2012	25.30	24.60	97%	0.70	3%
May 20	2012	22.80	22.10	97%	0.70	3%

Call option	Last (\$)	Intrinsic value	Time value
May 22.5	2012	19.60	96.5%
May 25	2012	17.10	95%
May 40	2012	2.10	38%
June 20	2012	22.10	95%
June 22.5	2012	19.60	93.8%
June 25	2012	17.10	91.5%
June 40	2012	2.10	25.6%

Notice how deep ITM options premiums are heavily weighted by intrinsic value and minimally weighted by time value, which reduces the exposure to time decay, and how time value tends to dominate the short-term ATM options.

Staying with the simple call option of YNWA (Example 6.1.3), the stock price is \$69, and the 70 strike January 2013 call is priced at 9.80. Let's look at the theta as of April 20, 2012 and compare it with the position of theta with only one month left to expiration.

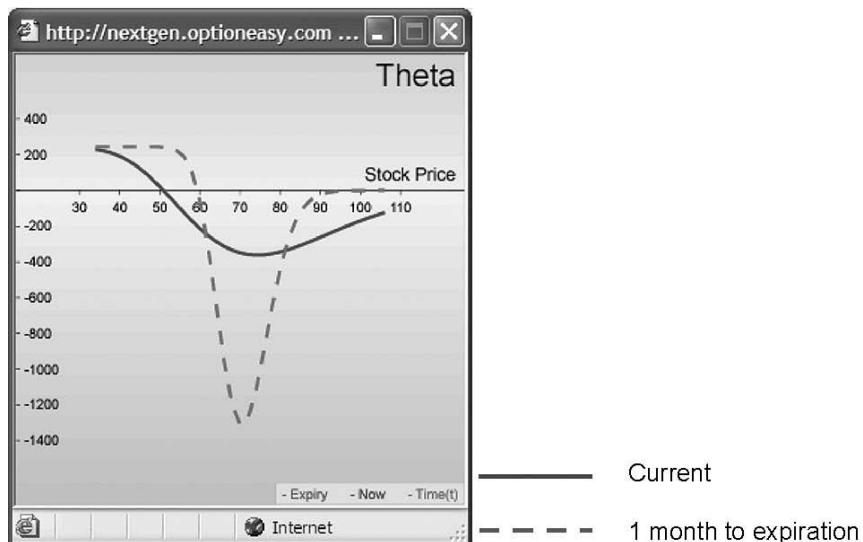
Notice how both theta lines are negative and how much more theta decay is harming the long call position when there is only one month left to expiration. Also notice how theta is at its lowest where the stock is at the \$70 level—that is, ATM.

**Chart 6.3.1** • Long call theta profile.



The same applies to puts. Let's look at the equivalent example with puts:

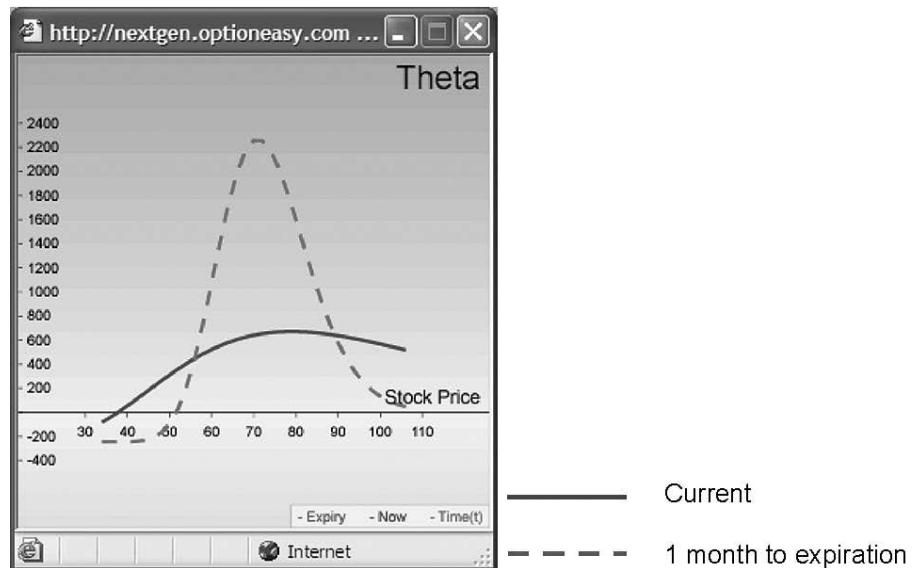
**Chart 6.3.2 ● Long put theta profile.**



Now look at theta decay for the short call and short put positions. Can you guess what will happen and how they will look?

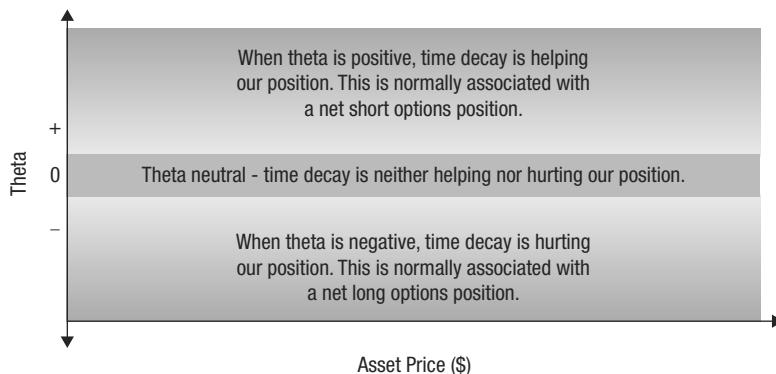
**Chart 6.3.3 ● Short call theta profile.**



**Chart 6.3.4** • Short put theta profile.

Generally, when theta is positive, time decay is helping the position. When theta is negative, time decay is hurting the position. When you buy options, you have a negative theta, indicating that time decay hurts the long option position. This makes sense because an option is a wasting asset. When you write options, you would expect the opposite to be the case, which it is. When you write an option, its value will decline as you approach expiration. If you write a one dollar OTM option with 10 days left to expiration, assuming that time decay reduces the option by 0.10 per day, then by day 5, you would have to pay only 0.50 to buy it back, thereby making a 0.50 profit assuming the stock has not moved. In this scenario, time decay has helped you, the writer of the option. On the other hand, the person who (stupidly!) bought the OTM option from you with only 10 days to expiration has lost 50 percent within the first 5 days, assuming there is no movement in the stock price.

If time decay is unhelpful to your long option positions, then it will be helpful to your short option positions. A simple graphical representation with the positive theta lines shows that theta decay is helpful to a short option position.

**Diagram 6.3.3 ● Theta summary.****Vega K (Also Known as Kappa or Lambda)**

Chapter 1, “Introduction to Options,” discussed the following seven factors that influence an option’s price:

1. The type of option (call or put)
2. The price of the underlying asset
3. The exercise price (or strike price) of the option
4. The expiration date
5. Volatility—implied and historical
6. Risk-free interest rate
7. Dividends and stock splits

**Memory Tip**

*Vega starts with a V and stands for volatility.*

When you trade stocks, you must be aware of volatility. Volatility is a measure of how a security’s price is moving. Volatility is recognized as a measure of risk. If a stock price fluctuates all over the place in wild swings, then you’d find it uncomfortable because you wouldn’t know what it was going to do next, and it would feel risky. If a stock price remains static, then you might get a bit bored, but you wouldn’t have to reach for the Pepto-Bismol!

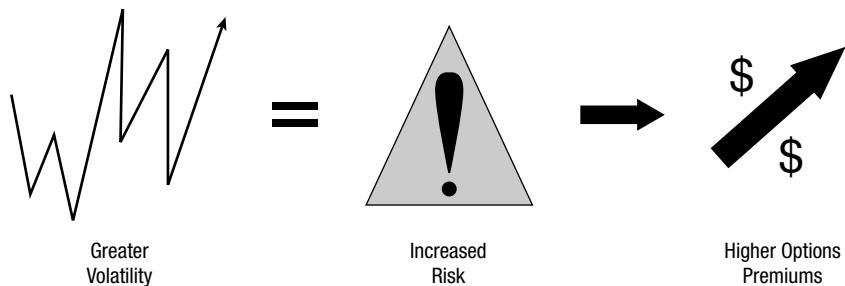
So, higher volatility is predicated by wider, faster price fluctuations. This translates into greater risk. The greater the volatility and risk, the more expensive options premiums become.

Volatility is calculated by measuring the standard deviation of closing prices and then expressed as an annualized percentage figure.

Volatility is not directional. If a stock is priced at \$100 and has volatility of 20 percent, then we expect the stock to trade in the range of \$80–\$120 for the next year.

Vega measures an option's sensitivity to the stock's volatility.<sup>2</sup> This volatility is known as *historical* or *statistical* volatility.

**Diagram 6.4.a ● Volatility.**



There are two categories of volatility: historical and implied.

<b>Historical (or statistical) volatility</b>	Derived from the standard deviation of the underlying asset. Price movement over a known period of time.
<b>Implied volatility</b>	Derived from the market price of the option itself.

The following seven variables affect an option's premium. Six of these variables are known with certainty:

- (i) Stock price
- (ii) Strike price
- (iii) Type of option
- (iv) Time to expiration
- (v) Interest rates
- (vi) Dividends
- (vii) Expected volatility of the stock going forward—This variable is not certain.

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<sup>2</sup> On price charts, notice the increasing volatility—when the individual price bars get longer, they start gapping and might start to exhibit longer tails when displayed as candlesticks.

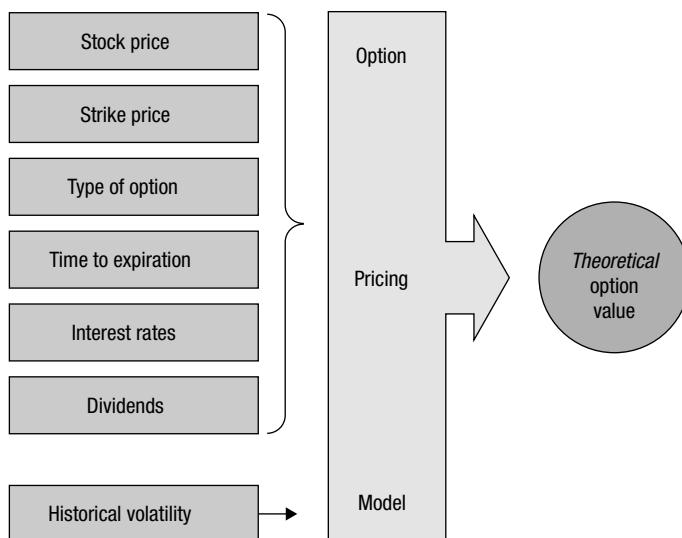
## Implied Volatility

There are several mathematical models for calculating the *theoretical* value of an option. In the main, they manipulate the previous seven variables to arrive at the correct theoretical option price. I stress the word *theoretical* because the theoretical price is not the market price for the option. Sometimes the figures are the same; sometimes they are different—there's no magic rule.

- The theoretical option price uses historical volatility (of the stock) to calculate the theoretical value of an option. So, all the seven factors go into the pot and you emerge with a theoretical option price.
- The market price of an option premium has a volatility figure *implied* within it. You reverse the theoretical option price model to find out what figure for volatility was implied. So, with a real market option where you know the trading price, you mix the six factors (not volatility) into the pot with the actual market option price to work out what the *implied volatility* figure must be to create that market price.

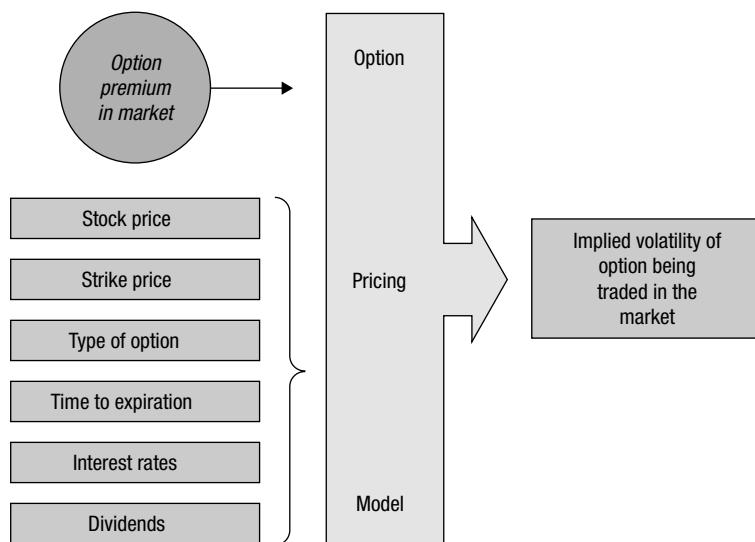
## Theoretical Option Price

**Diagram 6.4.b** ● Theoretical option pricing.



## Implied Volatility Calculated from Real Option Prices in the Market

**Diagram 6.4.c** ● Theoretical option pricing.



This expected volatility figure is expressed as an annualized percentage and, working back from the option premium itself, is an “implied” figure, hence *implied volatility*.

A historical volatility is the annualized standard deviation of *past* price movements of the stock. You can use historical volatility as a reference figure for calculating what the *fair value* of the option should be, given the stock’s historical volatility. In the real world, option premiums frequently trade away from their fair values, adopting trading ranges driven more by demand and supply in the cut and thrust of market activity.

Volatility	Based on...
<b>Historical</b>	Underlying <b>stock</b> volatility over a period of time, for example the past 20 trading days. Expressed as a percent reflecting the average annual standard deviation.
<b>Implied</b>	The volatility derived from the <b>option's</b> traded market price using an option pricing model. Expressed as a percent.

The mechanical pricing of options involves complex mathematical formulas, which we don't explore here. There are also a number of different methodologies available for options pricing models, each with their associated merits. Typically I tacitly refer to the Black-Scholes Options Pricing Model (for stocks and American-style [early exercise] options) and Black's Option Pricing Model (for futures and European-style [no early exercise] options).

Remember that there are seven major influences for pricing an option. Also remember that volatility is one of them. In the marketplace, the value assigned to an option is determined by market forces. This can give rise to inconsistency between the fair value of an option and the actual price of the option in the marketplace. The fair value of an option is the mathematically based calculation of the option price, using historical volatility as the figure for volatility.

The inconsistency emerges when the market price differs from the fair value, which is a common occurrence. Out of all seven factors that influence the option price, the only one that could be subject to any form of debate is volatility. Let's go through the seven factors again:

Factor influencing option price	Comment
1. The type of option (call or put)	This is fixed and cannot be changed; the option is either a call or a put.
2. The price of the underlying asset	There is no room for maneuver here because the option price is directly correlated with the underlying asset price.
3. Strike price	The strike price is fixed for each option.
4. The expiration date	The expiration date is fixed for each option.
5. Volatility*—implied and historic	Although historical volatility itself is fixed (with respect to whatever time period you assigning to it, say, 20 trading days), the choice of time frame can be somewhat arbitrary and doesn't necessarily fit with the time left to the option's expiration. The discretion between the option's market value and its fair value is therefore interpreted as an anomaly of volatility (it simply cannot be any of the other six factors). Implied volatility is a calculated figure arising from the actual market price itself.
6. Risk-free interest rate	The risk-free rate is fixed.
7. Dividends and stock splits	Dividends and stock splits are fixed.

\*Volatility is always expressed as a percentage.

**Question:** What does historical volatility mean?

**Answer:** Historical volatility is a reflection of how the underlying asset has moved in the past.

### Example 6.4.1<sup>3</sup>

Consider a stock priced at \$41.41 on May 1, 2012, and with July 40 strike calls and puts priced at 9.30 and 7.40, respectively.

Option	Option price	Historical volatility (23 days)	Implied volatility
Call strike 40	July 2012	9.30	196.74
Put strike 40	July 2012	7.40	196.74

If the options were priced in the market according to the historical volatility, the call would be worth 15.41, and the put would be priced at 13.51. Are you getting a bargain for your options?<sup>4</sup> Well, that would depend on whether implied volatility is usually at a discount or premium to historical volatility with this particular stock, as well as a number of other factors. Each stock and each underlying asset will have different characteristics with regard to the relationship between implied and historical volatility of their options chains. Just like you have to become familiar with a stock's personality, you also have to become familiar with its option chain's personality and the historical relationship between historical and implied volatility.

For now, just remember that historical volatility is a figure derived from the underlying asset price movement, and implied volatility is derived from the actual market premium of the option itself.

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<sup>3</sup> Real-life example.

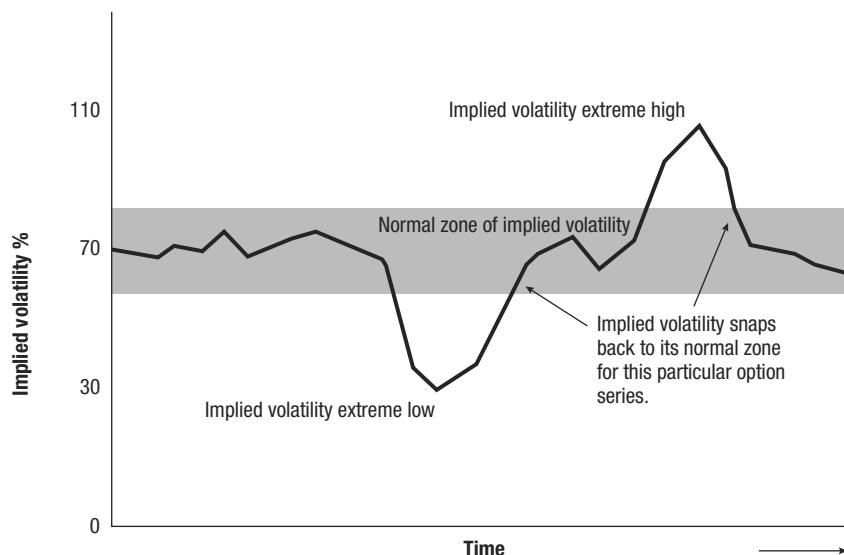
<sup>4</sup> The higher the implied volatility, the higher the option price will be and vice versa. If implied volatility is substantially lower than historical volatility, there could be an argument to suggest good value in the option price itself.

Volatility	Based on...
<b>Historical/Statistical</b>	Underlying asset volatility over a period of time (for example, the past 20 trading days). Expressed as a percentage reflecting the average annual range (that is, standard deviation).
<b>Implied</b>	The volatility derived from the option's traded market price using an option pricing model. Expressed as a percentage and based on the perception of where market will be in the future. This is the volatility figure derived from the Black-Scholes Options Pricing Model.

In terms of trading, if you can recognize how implied and historical volatility relate to each other with a specific stock, you also can identify powerful ways with which to trade the options.

The following table is a typical guide to how to trade the relationship between implied and historical volatility. Exercise caution here. Typical does *not* necessarily mean it's right! The key is what the relationship has been like in the past and whether the present is significantly different. Volatility swings are often likened to the "rubber band effect" where if the rubber band is stretched too tight in one direction or too loose in the other, it will generally revert to its most natural position most of the time. Therefore, if implied volatility is generally around 70 percent for a stock, but for a period of time it plummets to, say 30 percent, could it be possible that the options prices might be a good value? Or, using the same example, say implied volatility rockets up to 110 percent, could the options perhaps be overvalued? This is how the rubber band effect is best illustrated. Over the medium to long term, implied volatility tends to veer toward the historical volatility figure, but this depends upon how consistent the historical volatility of the underlying asset is.

Look for:	Typical interpretation (not necessarily the right interpretation)
<b>Implied &gt; Historical</b>	Options prices could be overvalued as a result of higher implied volatility; therefore, look to sell options premiums.
<b>Historical &gt; Implied</b>	Options prices could be undervalued, indicating good buying opportunities, particularly if you anticipate underlying asset price movement.

**Diagram 6.4.1 ● Implied volatility and the rubber band effect.**

So in simplistic terms, some traders look to buy options with low implied volatility (because the option premium will be low) compared with the historical volatility of the underlying stock. In this way, the perception is that the options are cheap or undervalued; therefore, they must represent a good trade.

As discussed previously, this is a dangerous assumption to make. For a start, option premiums often have implied volatilities consistently inconsistent with the historical volatility of the underlying stock. Secondly, just because an option is cheap today doesn't mean it'll be expensive tomorrow. So the rationale for that tactic is flawed. Of far more relevance would be to look at the history of implied volatility and see whether current options prices are trading away from their own averages.

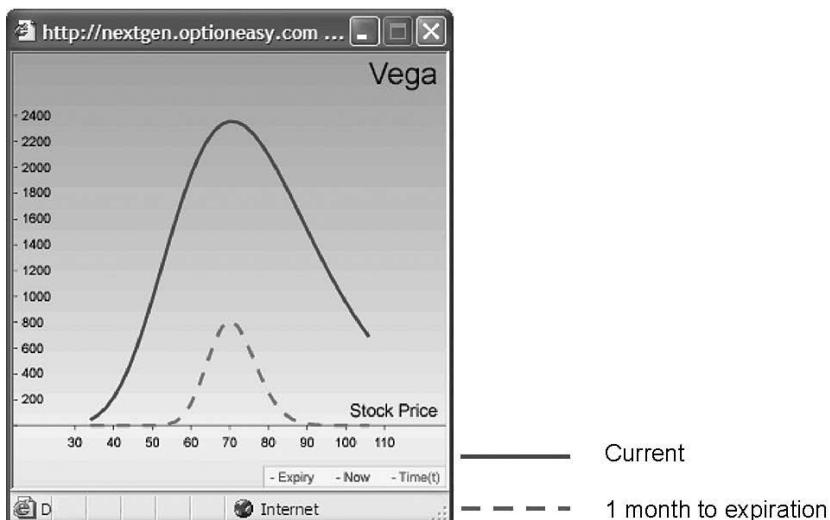
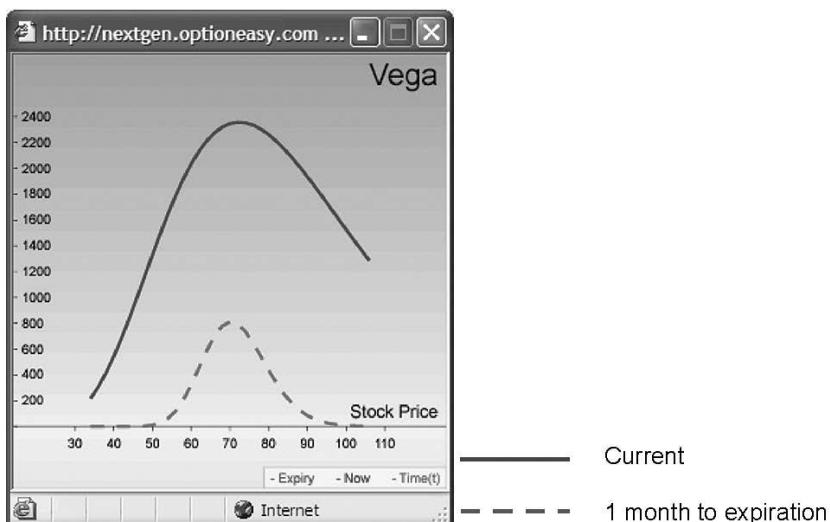
Similarly, some traders look to sell options with premiums reflecting high implied volatility (because the option premium will be high) compared with the historical volatility of the stock. Again, this is a flawed methodology in the real world of trading, even if the logic initially looks plausible.

## Vega Characteristics

Vega is identical and positive for (long) calls and puts. This reflects the fact that higher volatility increases the option's premium. When vega is positive, it generally suggests that increasing volatility is helping the position. When vega is negative, it generally suggests that increasing volatility is hurting the position.

**Example 6.4.2**

Staying with the YNWA example where the stock price is \$69, let's look at the January 2013 70 strike calls and puts, respectively.

**Chart 6.4.1 ● Long call vega profile.****Chart 6.4.2 ● Long put vega profile.**

As you can see, vega is identical for both calls and puts. Notice how it increases around the money (strike price) and how vega is vastly reduced where there is less time to expiration. This is because there is less time for increased volatility to make an impact on the time value component of the option's value.

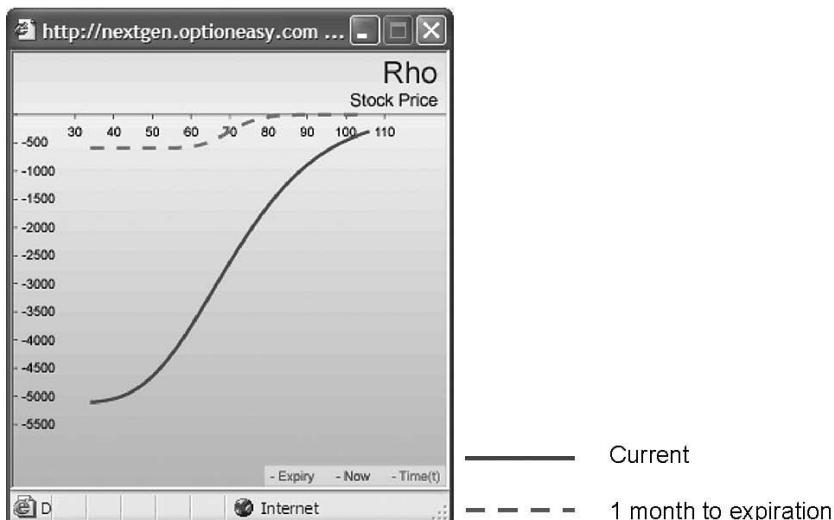
**Diagram 6.4.2 ● Vega summary.**

## Rho $\rho$

Rho is arguably the least significant of the five main Greeks (sensitivities), and as such we spend only a little time on it. Rho is positive for stock call options and negative for some other assets such as call options on futures. This means that for call stock options, a higher risk-free interest rate translates to higher call pricing. The sensitivity is not nearly as pronounced as with the other Greeks and, as such, rho is not overly significant for our purposes.

Call rho is always positive, signifying that higher interest rates will improve a call's value. Put rho is always negative, signifying that higher interest rates will hurt a put's value.

**Chart 6.5.1 ● Long call rho profile.**

**Chart 6.5.2 ● Long put rho profile.**

## Chapter 6 Major Learning Points

In this chapter, we learned the basics of the Greeks and understand that they are purely sensitivities of options to the various factors that form part of the various options pricing models.

Greek	Quick definition
<b>Delta</b>	The speed of the option price over the speed of the underlying asset price. Delta can also be viewed as the probability of an option expiring ITM.
<b>Gamma</b>	Sensitivity of delta relative to the underlying asset price movement. Gamma can also be viewed as the odds of a change in delta.
<b>Theta</b>	Option price sensitivity to time decay. When theta is positive, time decay is helping the position. When theta is negative, time decay is hurting the position.
<b>Vega</b>	Option price sensitivity to the underlying stock price volatility. When vega is positive, volatility is helping the position. When vega is negative, volatility is hurting the position.
<b>Rho</b>	Option price sensitivity to interest rates. When rho is positive, increasing interest rates are helping the position. When rho is negative, increasing interest rates are hurting the position.

Now that we know what factors affect the pricing of options, we can start to devise specific strategies to mitigate the impact of the important sensitivities, particularly delta and theta decay.

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## chapter 7

# Bull Call Spreads and Bull Put Spreads

Many people think you can only trade the markets when they are going up. This is not so. You shouldn't really care in a predictive sense. Because whichever direction it's heading, I'll attempt to follow the trend. Bearish strategies can be just as profitable as bullish strategies. But for now, we'll just concentrate on being bullish.

The question, "Where is the market heading?" can be answered only in the context of time frame. A five-minute chart might indicate strong upward movement, whereas the daily charts suggest either a downtrend or consolidation. You'll ultimately decide what time frame you're best suited to trade, but whatever the case, it's a good idea to be aware of multiple time frames. For example, if you're looking to trade the five-minute chart, be aware of what the hourly and daily charts are doing. This ensures that you're aware of a potentially more powerful trend or direction.

We've spent a lot of time so far talking about maximum risk, maximum reward, and breakeven points. This is because these three numbers are the most important figures you need to be aware of in any kind of business or any kind of investment. At all times, you want to explore the following possibilities:

- Reducing the risk
- Maximizing the reward
- Minimizing the breakeven

This is a simple concept but one that requires you to understand the risk profile in the first place. This is why I put so much emphasis on this area.

We discuss the following two strategies in this chapter:

- Bull call spread
- Bull put spread

### **Memory Tip**

#### **Bull spreads**

- Buy low strike.
- Sell high strike.

#### **Bear spreads**

- Buy high strike
- Sell low strike.

As you can imagine, the prerequisite for success in both strategies is that the market direction goes up (or at least not down) and that one uses calls and the other uses puts. Although both strategies appear to have the same risk profiles because the shapes are the same, they are fundamentally different strategies, requiring different criteria and different time frames. Both do share in common, however, the characteristics of reducing the risk and breakeven points of a bullish trade, while also providing attractive levels of maximum reward.

## **Bull Call Spreads**

The bull call spread is a bullish strategy that involves the following steps:

**Step 1** Buy lower strike calls.

**Step 2** Sell same number of higher strike calls with the same expiration date.

The lower strike calls will be more expensive than the higher strike calls, so this will be a NET DEBIT transaction—that is, you will pay for the trade from funds out of your trading account.

**Diagram 7.1** ● Bull call spread.

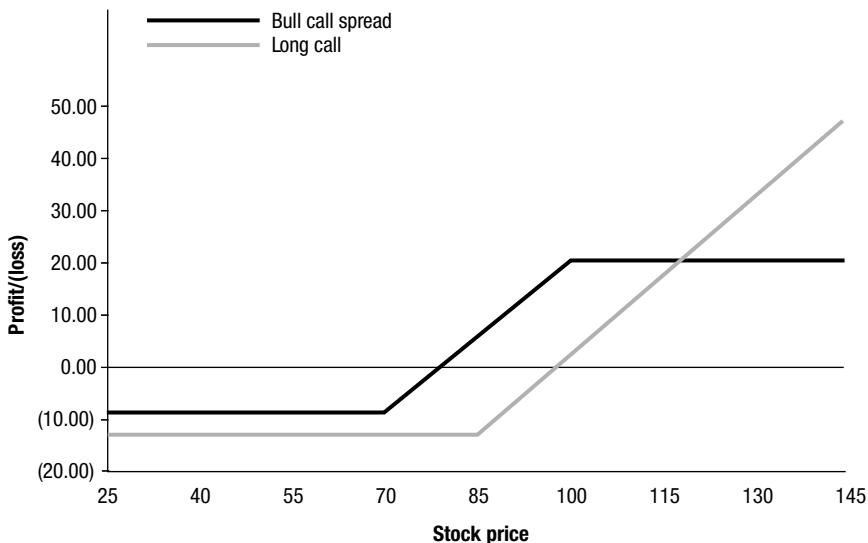


The bull call spread is a lower-risk alternative to buying a straight call. Let's compare the risk profiles of these two strategies:

	<b>Long call</b>	<b>Bull call spread</b>
<b>Maximum risk</b>	Call premium paid	Net debit of the spread (for example, what you pay)
<b>Maximum reward</b>	Unlimited	Limited to the difference in strike prices less the net debit paid
<b>Breakeven</b>	Strike price <b>plus</b> call	Lower strike price <b>plus</b> net debit paid premium paid

Here it's easy to see that while the long call has potentially unlimited reward, the breakeven and risk will be higher. A simple graphical representation demonstrates this:

**Chart 7.1.1 ● Bull call spread versus long call.**



### Example 7.1.1

XYZ stock is priced at \$70.00. You are considering one of the following alternative strategies:

- (a) **Long call** Buy Jan 2013 70 strike call @ 13.00
- (b) **Bull call spread** Buy Jan 2013 70 strike call @ 13.00 and sell Jan 2013 100 strike call @ 5.00 (net debit 8.00)

The respective risk profiles of (a) and (b) are as follows:

	Long call (a)	Bull call spread (b)
You pay (net debit)	13.00	8.00
Max risk	13.00	8.00
Max reward	Unlimited	22.00 (275% on risk)
Break-even	83.00	78.00
Max risk on net debit	100%	100%

So you can see that the bull call spread is less risky in terms of lower risk and breakeven points, but it also offers you a limited (albeit still attractive) potential reward. Note that the *maximum percentage loss on your net debit* is 100 percent in both cases. So if you spent more dollars on your bull call spread, you could still lose every one of those dollars if the stock closes lower than 70.00 at expiration. This is a vital point and one that is constantly overlooked.

You might notice that the bull call spread has the same shape as a collar. The major difference in terms of risk profile is that the bull call spread offers more leverage and maximum potential return in exchange for more risk. In terms of structure, the bull call and collar are completely different and are designed for entirely different risk objectives.

## Selecting the Long Call Strike and the Short Call Strike

You trade bull call spreads in circumstances where you anticipate the underlying asset price to rise. For the bull call to be profitable, you generally require the

You trade bull call spreads in circumstances where you anticipate the underlying asset price to rise.

asset price to rise. As you can see, maximum profit occurs at the higher strike price, and maximum loss occurs at the lower strike price.

*The question is: Which options do you select for the long side and the short side?*

- Generally, you select the lower strike price (for the option you're buying) to be near-the-money (NTM)—that is, close to the underlying asset price.
- The short side of the bull call spread involves you selling the higher strike call option against the one you just bought. You want to select a strike price that is the following:
  - High enough to create a decent upside.
  - Low enough so that the premium you're selling impacts favorably upon your net debit and therefore your risk and breakeven points. Generally, you want to at least double your amount of maximum risk for any spread trade that you do. Personally, I look for spreads that offer me at least 250 percent maximum return on maximum risk if the stock moves up toward the upper strike price.

Selling the higher strike call against the lower strike bought call creates three major effects:

1. It lowers your cost and therefore your risk and breakeven.
2. It caps your upside.

The capping of the upside is not too hard to take if you manage to create a spread that is capable of more than doubling your money over the course of the trade if the market behaves in the way you expect it to.

3. Delta is hedged to an extent.

The option you sell hedges the delta of the overall trade, and the effect is that the fluctuations of your position will slow down, but without harming your long-term (for example, at expiration) gearing effect. So, why do you want to slow down the possible fluctuations of your position? The reason is what happens if you're wrong on the direction? If you buy a simple at-the-money (ATM) call option and you get the direction wrong, your position will be decimated quickly. With a bull call spread, the effect will be slower, which can give you the opportunity to exit the trade before more serious damage is done.

## Safest Time Period to Trade the Bull Call Spread

Time decay is detrimental to your position here, so you'll be safest to treat the bull call spread as a *long-term* strategy spanning at least six months to expiration, preferably more. I usually trade this strategy with at least a year left to expiration. Remember, as an option buyer you want to have as much time as possible to be right.

### Example 7.1.2

Here's the January 2013 call options chain for the stock YNWA (\$68.49), taken from May 3, 2012. See whether you can construct an attractive bull call spread. Please note that this is not a trade that I am looking at trading myself; it's purely for illustration purposes only, taking advantage of a well-known name. For this reason, let's assume that you're bullish about YNWA and you're looking for an appropriate trade.

The choices of bull call spreads are as follows:

<b>Step 1</b>	<b>Long call</b>	Buy 70 strike Jan 2013 call @ 9.60
<b>Step 2</b>	<b>(i) Short call</b>	Sell 75 strike Jan 2013 call @ 7.00
<b>Or</b>	<b>(ii) Short call</b>	Sell 80 strike Jan 2013 call @ 5.20
<b>Or</b>	<b>(iii) Short call</b>	Sell 85 strike Jan 2013 call @ 3.80
<b>Or</b>	<b>(iv) Short call</b>	Sell 90 strike Jan 2013 call @ 2.70
<b>Or</b>	<b>(v) Short call</b>	Sell 95 strike Jan 2013 call @ 1.90
<b>Or</b>	<b>(vi) Short call</b>	Sell 100 strike Jan 2013 call @ 1.30
<b>Or</b>	<b>(vii) Short call</b>	Sell 105 strike Jan 2013 call @ 0.85
<b>Or</b>	<b>(viii) Short call</b>	Sell 110 strike Jan 2013 call @ 0.60
<b>Or</b>	<b>(ix) Short call</b>	Sell 115 strike Jan 2013 call @ 0.35
<b>Or</b>	<b>(x) Short call</b>	Sell 120 strike Jan 2013 call @ 0.20

Let's look at the risk profiles for each alternative:

<b>Step 1 Long call</b>					
<b>Buy 70 strike Jan 2013 call @ 9.60</b>		<b>Risk</b>	<b>Reward</b>	<b>Breakeven</b>	<b>Max RO</b>
<b>Step 2</b>	<b>Short call</b>				
(i)	<b>Sell 75 strike Jan 2013 call @ 7.00</b>	2.60	2.40	72.60	92.31%
✓ (ii)	<b>Sell 80 strike Jan 2013 call @ 5.20</b>	4.40	5.60	74.40	127.27%
✓ (iii)	<b>Sell 85 strike Jan 2013 call @ 3.80</b>	5.80	9.20	75.80	158.62%
✓ (iv)	<b>Sell 90 strike Jan 2013 call @ 2.70</b>	6.90	13.10	76.90	189.86%
✓ (v)	<b>Sell 95 strike Jan 2013 call @ 1.90</b>	7.70	17.30	77.70	224.68%
(vi)	<b>Sell 100 strike Jan 2013 call @ 1.30</b>	8.30	21.70	78.30	261.45%
(vii)	<b>Sell 105 strike Jan 2013 call @ 0.85</b>	8.75	26.25	78.75	300.00%
(viii)	<b>Sell 110 strike Jan 2013 call @ 0.60</b>	9.00	31.00	79.00	344.44%
(ix)	<b>Sell 115 strike Jan 2013 call @ 0.35</b>	9.25	35.75	79.25	386.49%
(x)	<b>Sell 120 strike Jan 2013 call @ 0.20</b>	9.40	40.60	79.40	431.91%

*Which one would you choose?*

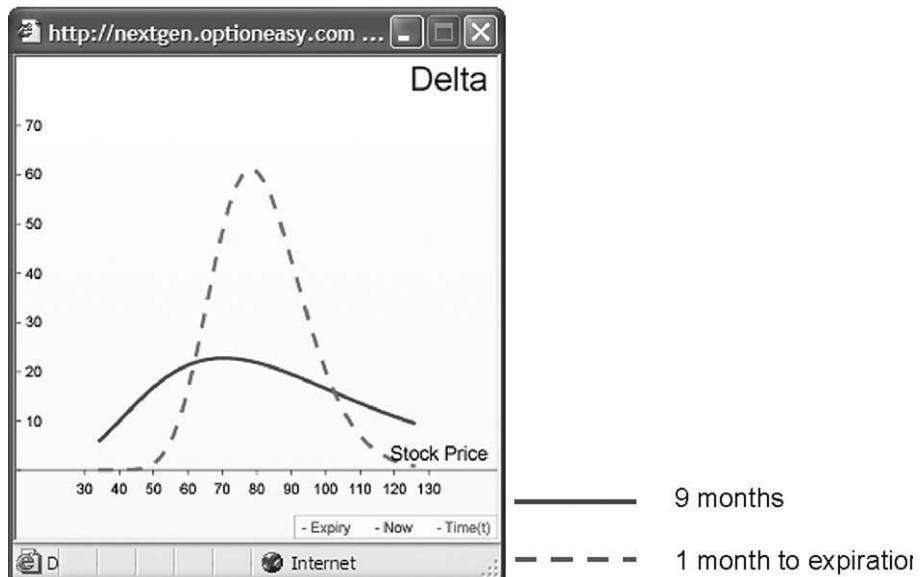
From the possibilities, the most attractive is (iv) or (v). The risk and breakeven points are materially lowered while the maximum reward and maximum Return on Investment are high enough to be attractive.

Profiles (ii) and (iii) are also attractive in terms of vastly reduced risk and breakeven, and for a relatively small increase in YNWA's stock price (16.8 percent and 24.1 percent, respectively), the potential maximum returns of 127.27 percent and 158.62 percent represent significant leverage.

## Bull Call Spreads and the Greeks

<b>Delta</b>	Delta peaks in between the two strike prices showing you that at these levels smaller movements in the stock price will be enough to generate large swings in the bull call spread value. With bull calls, delta is more sensitive the shorter the time there is to expiration (see Chart 7.1.2).
<b>Gamma</b>	Gamma is positive while the spread is out-of-the-money (OTM) (below the lower strike price) but becomes negative (showing the deceleration of the position delta) as the asset price rises above the lower strike price.
<b>Theta</b>	Theta becomes positive as the position moves upward beyond the breakeven point. Time decay is working against you when the bull call is OTM and unprofitable and for you when it is in-the-money (ITM). In practical terms, once you are ITM the profitability improves with the passage of time because the profit becomes purely the difference in the strike prices less what you paid for it, with the time value differential between the strikes becoming less and less of a factor (see Chart 7.1.3).
<b>Vega</b>	Vega moves from positive to negative as the position moves upward beyond breakeven point. Increased volatility is helpful while the position is not making money and unhelpful when you are in a profitable position in the trade. This makes perfect sense if you're OTM—increased volatility can improve your chances of moving into a profitable position. On the other hand, when you're already in a profitable position, increased volatility might shake the underlying asset price back down to an unprofitable position. Vega becomes less sensitive with the passage of time, particularly the last month because there is less time for fluctuations in volatility to impact the position.
<b>Rho</b>	Rho's impact is enhanced the longer there is left to expiration. Rho increases up to and around the strike prices and then tails off into negative territory, as the position becomes deep ITM. Rho becomes less sensitive with the passage of time because the impact of interest rates reduces when there is less time for rates to have an effect.

**Chart 7.1.2 ● 70–90 strike bull call spread delta profile.**



**Chart 7.1.3 ● Bull call spread theta profile.**



## Bull Put Spreads

The bull put spread is a bullish strategy that involves the following steps:

- Step 1** Buy a lower strike put.
- Step 2** Sell a higher strike put with the same expiration date.

The lower strike puts will be cheaper than the higher strike puts because they are further OTM, so this will be a *net credit* transaction. That is, you will receive funds into your account for placing this trade, but your broker will require sufficient funds in your account (margin) to cover the risk exposure of the trade.

As a net credit transaction, the bull put spread can be looked upon as an *income strategy* on a monthly basis. You also can use a bull put spread in the

### Memory Tip

#### Bull spreads

- Buy low strike.
- Sell high strike.

#### Bear spreads

- Buy high strike.
- Sell low strike.

same way that you use a bull call spread, for example, over the long term. The only problem with this approach is that you'll normally find that call options tend to have higher volatilities and therefore create better spreads in terms of risk, reward, and breakeven. Therefore, we look at the bull put spread purely as a *short-term income strategy*. Conversely, the bull call spread is a net debit spread, meaning it cannot be used as an income strategy.

**Diagram 7.2** ● Bull put spread.



The bull put spread looks (in shape) similar to the bull call spread, but it has a number of distinguishing qualities. Let's compare the two strategies:

	Bull call spread	Bull put spread
<b>Maximum risk</b>	Net debit of the spread (for example, what you pay)	Limited to the difference of the strike prices less the net credit received
<b>Maximum reward</b>	Limited to the difference in strike prices less the net debit paid	Limited to the net credit received
<b>Breakeven</b>	Lower strike price plus net debit paid	Higher strike price less net credit received
<b>Maximum risk on net debit or net credit</b>	100% risk on net debit	Can be greater than 100% risk on net credit

**Example 7.2.1**

It is May 4, 2012. Our renamed stock KMD is priced at \$41.48. You are considering one of the following alternative bullish strategies:

- 
- |                             |                                                                                                  |
|-----------------------------|--------------------------------------------------------------------------------------------------|
| <b>(a) Bull call spread</b> | Buy Jan 2013* 40 strike call @ 11.90 and sell Jan 2013 60 strike call @ 4.90<br>(net debit 7.00) |
| <b>(b) Bull put spread</b>  | Buy June 2012 35 strike put @ 2.20 and sell June 2012 40 strike put @ 3.80 (net credit 1.60)     |
- 

\* Note the vastly different time frames here. We select a bull call spread that expires in January 2013 while comparing it with a bull put spread that expires in June 2012. This will have a material difference on the yields, so we compare yields on a monthly basis.

The respective risk profiles of (a) and (b) are as follows:

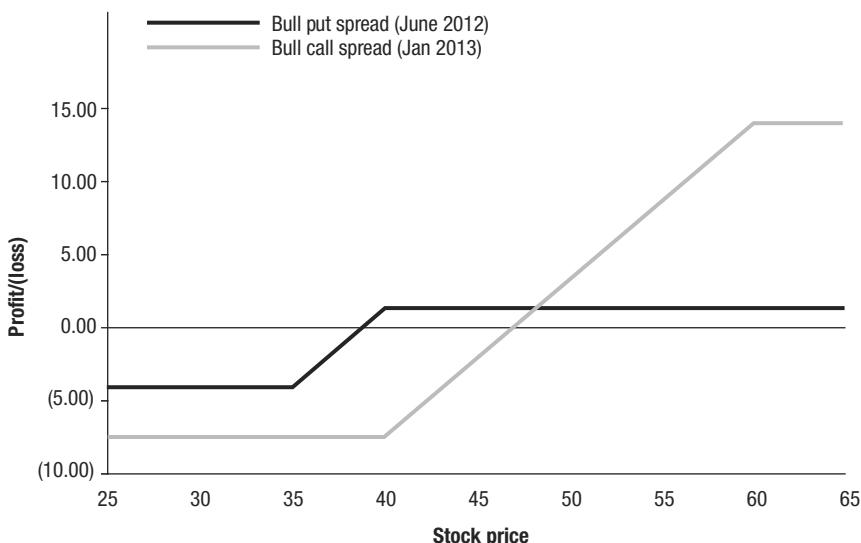
	<b>Bull call spread (a)</b>	<b>Bull put spread (b)</b>
<b>You pay</b>	7.00 net debit	(1.60) net credit
<b>Maximum risk</b>	7.00	3.40
<b>Maximum reward</b>	13.00 (185.71% on risk)	1.60 (47.06% on risk)
<b>Maximum monthly yield</b>	13.12%	32.22%
<b>Break-even</b>	47.00	38.40
<b>Maximum risk on net debit (credit)</b>	100% risk on net debit	212.5% risk on net credit

Notice that the comparison between the two strategies isn't really fair because, despite the appearance of the risk profiles, these strategies are fundamentally different in this context.<sup>1</sup> Notice how the maximum monthly yield is much higher for the bull put spread and also how the breakeven is so much lower. In fact, because we selected strike prices below the current share price, it means that for the bull put spread to be profitable we only need the stock to either stay where it is or at least not drop below \$38.40 from its current level of \$41.48. In other words, we have 3.08 points or 7.42 percent cushion.

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<sup>1</sup> If you selected the same strike prices and expiration dates for both strategies then, with actual prices, the bull call spread would yield a maximum of 185.71 percent, and the bull put spread would yield a maximum of just 166.67 percent, thus demonstrating why the bull put spread is better employed as an income strategy in the market context of strong support and a short-term bullish outlook.

*(Footnote continues on the next page.)*

**Chart 7.2.1 ● Bull put spread (b) versus bull call spread (a).****(a) Bull call spread**

Buy Jan 2013 40 strike call @ 11.90 and  
Sell Jan 2013 60 strike call @ 4.90 (net debit 7.00)

**(c) Bull put spread**

Buy Jan 2013 40 strike put @ 9.10 and  
Sell Jan 2013 60 strike put @ 21.60 (net credit 12.50)

	<b>Bull call spread (a)</b>	<b>Bull put spread (c)</b>
<b>You pay</b>	7.00 <i>net debit</i>	(12.50) <i>net credit</i>
<b>Maximum risk</b>	7.00	7.50
<b>Maximum reward</b>	13.00 (185.71% on risk)	12.50 (166.67% on risk)
<b>Maximum monthly yield</b>	13.12%	12.21%
<b>Breakeven</b>	47.00	47.50
<b>Maximum risk on net debit (credit)</b>	100% risk on net debit	60% risk on net credit

See how in this context the bull call spread is superior in just about every way? There are fewer dollars at risk, the maximum yield is higher, and the breakeven is lower. Now you can see why we look at the bull put spread as a short-term income strategy, making use of the net credit, and why we don't generally use it as a longer-term strategy because the bull call spread is a better alternative.

I emphasize that the comparison is shown to illustrate that we do *not* do credit spreads that are ITM. Therefore, the bull put spread in this example is something we would never even consider.

From the chart, you can see how the bull put breakeven is much lower than the bull call. At the same time, both the maximum risk and reward of the bull put are substantially lower than the bull call.

## Selecting the Long Put Strike and the Short Put Strike

You trade a bull put spread in circumstances where you anticipate the underlying asset price to either rise or at least not fall below the level of the higher strike price selected.

*The question is: Which strike prices do you select for the long side and the short side?*

For a bull put spread to work as a short-term income trade, you generally want to select both strike prices to be below the current stock price. Unlike the bull call (debit) spread, you want a tighter spread and one that requires your selected stock to do very little (if nothing at all) in order for you to make money from it. In most cases for U.S. stocks, the best bull put spreads are found with strike prices just five points apart.

- Generally, you select the higher strike price (for the option you're selling) to be well below the money (that is, below the current stock price) and at a strong support level. This depends on the maximum percentage return you can get for your spread, but in general I look for a minimum of \$0.50 from a \$5 spread (for example, 11 percent) and preferably \$1.00 from a \$5 spread (for example, 25 percent). In an ideal world, you'll also look for this higher put strike price to be around 20 percent below the current stock price and at a strong support level.
- The strike price you buy (the lower strike) will preferably be just \$5 below the higher strike that you choose to sell. You need to make sure that the net credit between the options you sell and the options you buy is going to yield you 11 percent at a bare minimum. The following table shows the yields and respective strike spreads:

<b>Spread between strike prices</b>	<b>Bull put net credit</b>	<b>Maximum yield (%)</b>
	0.25	5.26%
	<b>0.50</b>	<b>11.11%</b>
	0.75	17.65%
	<b>1.00</b>	<b>25%</b>
\$5.00	1.25	33.33%
	1.50	42.86%
	1.75	53.85%
	2.00	66.67%
	2.25	81.82%
	2.50	100%
	0.50	5.26%
	<b>1.00</b>	<b>11.11%</b>
	1.50	17.65%
	<b>2.00</b>	<b>25%</b>
\$10.00	2.50	33.33%
	3.00	42.86%
	3.50	53.85%
	4.00	66.67%
	4.50	81.82%
	5.00	100%

## Safest Time Period to Trade the Bull Put Spread

Time decay is helpful to your position, so you'll be safest to treat the bull put spread as a *short-term* income strategy, spanning just one month to expiration. Because in this strategy you are a *net seller* of options premium, you want to give the party on the other side of this trade as little time to be right as possible. Remember, when you buy options premium, you want as much time as possible to be right. With bull puts, you are a net seller of premium (hence the net credit), so it's logical to give the person on the opposite side of the trade as little time as possible to be right.

**Example 7.2.2**

Let's look at the June 2012 put options for the renamed stock ANFI (\$29.95), taken from May 4, 2012, and see whether you can construct an attractive bull put spread. Let's assume that you're bullish (or at least not bearish) about ANFI and looking for an appropriate trade.

To select which would be the best bull put spread, here are a few alternatives:

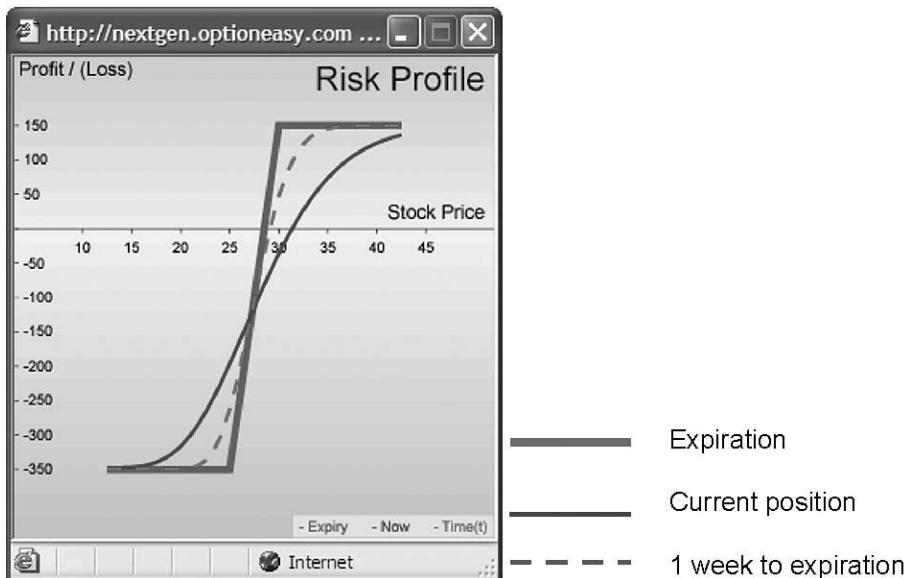
<b>Step 1</b>	<b>(i)</b>	<b>Long put</b>	Buy 27.50 strike June 2012 put @ 1.45
Or	(ii)	Long put	Buy 25 strike June 2012 put @ 0.80
Or	(iii)	Long put	Buy 22.50 strike June 2012 put @ 0.50
Or	(iv)	Long put	Buy 20 strike June 2012 put @ 0.25
Step 2		Short put	Sell 30 strike June 2012 put @ 2.30

Let's look at the risk profiles for each alternative:

<b>Bull put spread risk profile (both legs included)</b>					
<b>Step 1</b>	<b>Long put</b>	<b>Risk</b>	<b>Reward</b>	<b>B/E</b>	<b>Max ROI</b>
(i)	<b>Buy 27.50 strike June 2012 put @ 1.45</b>	1.65	0.85	29.15	51.52%
✓ (ii)	<b>Buy 25 strike June 2012 put @ 0.80</b>	3.50	1.50	28.50	42.86%
(iii)	<b>Buy 22.50 strike June 2012 put @ 0.50</b>	5.70	1.80	28.20	31.58%
(iv)	<b>Buy 20 strike June 2012 put @ 0.25</b>	7.95	2.05	27.95	25.79%
<b>Step 2</b>	<b>Short put</b>				
	<b>Sell 30 strike June 2012 put @ 2.30</b>				

*Which one would you choose?*

For this strategy, I'd prefer to choose strike prices further below the current stock price, but from the alternatives, (ii) is probably the best of the options because the ROI is high and there isn't much difference between the breakevens between (ii) and (iii).

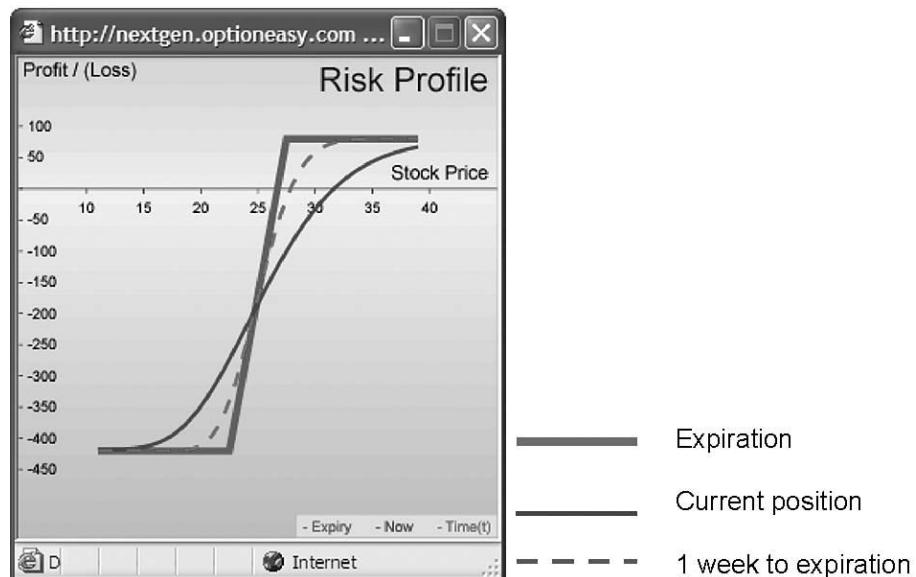
**Chart 7.2.2 ● ANFI 25–30 strike June 2012 bull put spread.**

In an ideal world, you prefer to select the short side (higher strike put) well below the current stock price. In this example you can, for instance, look at the 22.50–27.50 strike June 2012 bull put spread:

<b>Step 1</b>	<b>Long put</b>	<b>Bull put spread risk profile (both legs included)</b>			
	Buy 22.50 strike June 2012 put @ 0.50				
<b>Step 2</b>	<b>Short put</b>	<b>Risk</b>	<b>Reward</b>	<b>B/E</b>	<b>Max ROI</b>
	Sell 27.50 strike June 2012 put @ 1.30	4.20	0.80	26.70	19.05%

Here, the maximum ROI is significantly less than what you were looking at before, but look at how low the breakeven point is now. You have more than three points (10.85 percent) of cushion (remember, the stock price is at \$29.95), and the monthly return is over 13 percent. This particular trade offers lower risk in that the breakeven is that much lower than in the previous example.

**Chart 7.2.3 ● ANFI 22.50–27.50 strike June 2012 bull put spread.**



## Comparison of Bull Put Spread with Naked Put

Many traders like to use the naked put strategy to sell premium on a stock they'd quite like to buy at a lower level. The problem with this strategy is that it comes at the price of unlimited potential risk because the stock goes down to zero if the stock were to plummet.

	Naked put	Bull put spread
<b>Maximum risk</b>	Strike price less put premium received	Limited to the difference of the strike prices less the net credit received
<b>Maximum reward</b>	Limited to the net credit received for the put	Limited to the net credit received
<b>Break-even</b>	Strike price less put premium received	Higher strike price less net credit received
<b>Maximum risk on net credit</b>	Can be <b>substantially</b> greater than 100% risk on <b>net credit</b> received	Can be greater than 100% risk on <b>net credit</b>
<b>Margin required</b>	Typically 25% of the stock price at inception of the trade (as required by your broker)	Limited to the risk of the bull put spread trade

Let's compare a naked put with the previous example.

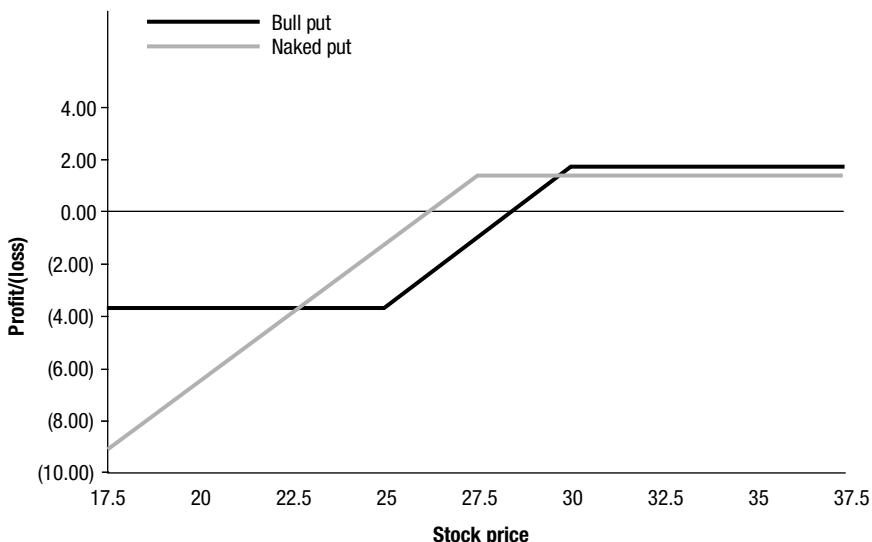
**Example 7.2.3**

It is May 4, 2012. XYZ is priced at \$30.00. You are considering one of the following alternative bullish strategies:

<b>(a) Naked put</b>	Sell June 2012 27.50 strike put @ 1.30	
<b>(b) Bull put spread</b>	Buy June 2012 25 strike put @ 0.80 and Sell June 2012 30 strike put @ 2.30 (net credit 1.50)	
	<b>Naked put (a)</b>	<b>Bull put spread (b)</b>
<b>You receive</b>	<b>1.30 net credit</b>	<b>1.50 net credit</b>
<b>Maximum risk</b>	26.20	3.50
<b>Maximum reward</b>	1.30 (4.76% on max risk)	1.50 (42.86% on max risk)
<b>Maximum monthly yield</b>	3.43%	29.47%
<b>Breakeven</b>	26.20	28.50
<b>Maximum risk on net credit</b>	2,015.38%	233.33%
<b>Margin required</b>	25% of the stock value = \$7.50	\$3.50 (i.e., max risk on the bull put trade)

The main advantage that the naked put holds over the bull put spread in this example is that the breakeven is more than two points lower. However, if you conclude that major support for the stock (purely for illustrative purposes—this is not necessarily my view) is around \$30, then you should have enough conviction about the trade to be happy with the bull put spread. I personally do not like the risk profile and associated dangers of naked puts (or naked calls for that matter).

**Chart 7.2.4 ● 25–30 June 2012 bull put spread (b) versus 27.50 June 2012 naked put (a)**



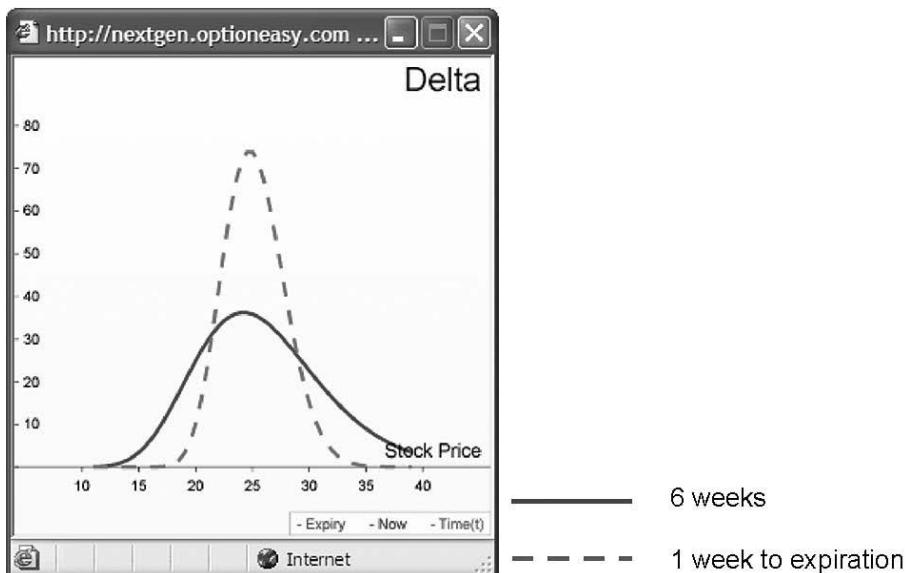
## Bull Put Spreads and the Greeks

<b>Delta</b>	Delta peaks in between the two strike prices (for example, NTM)—notice the difference between the one-month delta profile and the one-week delta profile. Small movements in the underlying stock price at these levels have a more dramatic impact on the value of the bull put position. Delta becomes much more sensitive as time decays. The bull put risk profile itself becomes much more sensitive as time decays. This is because time value is depleting to negligible levels, so the stock movement is followed almost exclusively by intrinsic value at these levels. Notice that as the stock price veers away from the money (on both sides), delta is not sensitive, and the most sensitive delta action occurs close to the two strike prices.
<b>Gamma</b>	The acceleration and deceleration of delta is reflected in the gamma values. As you would expect, gamma peaks in positive territory where the stock is just below the lower strike price and troughs into negative territory where the stock is just above the higher strike price.
<b>Theta</b>	Theta moves from negative territory below the lower strike price to positive territory above the higher strike price. Time decay works against you until you're ITM. Once you move above the breakeven point, theta decay helps you because it means if the options expire, you're in profit, so it suits you for them to expire sooner rather than later. If the stock price is below the lower strike price, this is loss-making territory, so it doesn't suit you for the options to expire; therefore, theta is negative. If theta is positive then time decay helps you, and if it is negative then time decay hurts your position.

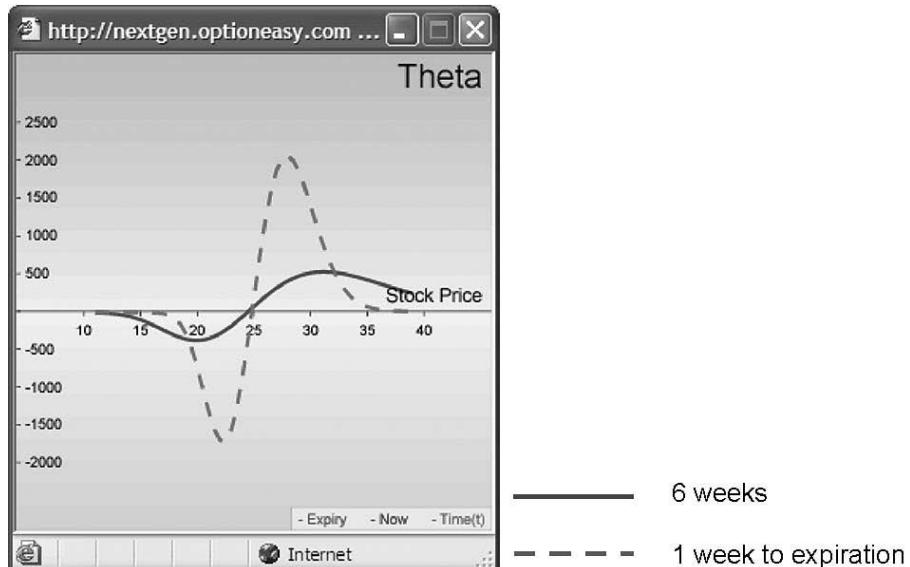
**Vega** Vega is positive when you're below the lower strike price and turns negative as the stock rises to above the breakeven figures. This means that the bull put position is more positively sensitive to volatility when the stock price is below the lower strike price. This makes perfect sense given that if you're below the money, increased volatility would be helpful to the position because it would increase the chances of the stock price moving, hopefully in an upward direction, thus putting you into profit. Once you're in profit and above the higher strike price, you don't want increased volatility because it increases the chances of moving the stock price, potentially in a downward direction, which is detrimental to the position.

**Rho** Rho's impact is enhanced the longer there is left to expiration. Rho increases up to and around the strike prices and then tails off into negative territory as the position becomes deep ITM. Rho becomes less sensitive with the passage of time, because the impact of interest rates reduces when there is less time for rates to have an effect. This, of course, is utterly logical.

**Chart 7.2.5 ● Bull put spread delta profile.**



**Chart 7.2.6 ● Bull put spread theta profile.**



## Placement of the Short (Higher) Strike and the Importance of Strong Support

This is such a critical factor that it bears repeating as a summary. Here are the criteria for sound bull put spreads:

1. Choose strong stocks that are in up trends on a daily chart basis. Do not use the bull put spread as a reversal strategy where the stock has been falling.
  - Avoid low-priced stocks of under \$20 where possible.
  - Avoid stocks with less than 500,000 Average Daily Volume (ADV). Illiquidity in a stock price means that prices can jump violently both up and down. You want to employ the bull put spread on solid stocks where support is both strong and clearly identifiable. Low ADV is not conducive to solid price support.
  - Find stocks with high enough volatility to create a large enough credit between the two strike prices, the higher of which is well below the current stock price. At the same time you want to avoid excessive volatility or sectors where volatility is so unpredictable that you can't sleep at night.

- Avoid stocks that are just about to announce earnings reports or similar. You don't want to be exposed to a sudden reversal in sentiment. The bull put spread is supposed to be a consistent strategy you can use every month (although not during bearish or volatile market conditions) for between 11 percent and 25 percent monthly returns where the breakeven point of your trade is significantly below the current stock price.
  - Look for strong price support, such as confirmed price support at a double or triple bottom.
2. Choose strike prices that are deep OTM (for example, lower than the current stock price). The lower the strike prices you select for your bull put spread, the greater the probability of a successful trade because the breakeven hurdle is that much lower.

## Advantages of Spread—A Summary

Spreads are far preferable than simple buying or selling single leg options. We've already seen how we can improve the risk and breakeven profiles without damaging the maximum profit potential. Here is a summary of why we like to use spreads for the options trading:

- Lower cost of trade—the sold option offsets the cost of the bought option.
- Lower overall risk of the trade.
- Lower breakeven of the (bullish spread) trade.
- Day-to-day fluctuations of the spread position are slowed down because of delta hedging properties of creating the spread.
- Can be used for different time periods (bull calls for the long term and bull puts for the short term).

The *disadvantages* of spreads are less significant but worth bearing in mind:

- Higher commissions (because you place more trades *per se*).
- Profit potential capped.
- Day-to-day fluctuations slowed down—this can be disadvantageous if price action of the underlying asset goes your way from the beginning.

Generally, however, delta hedging is a major advantage and will help your trading psychology as much as anything else. There is nothing more damaging to trading psychology than experiencing fast, devastating losses or whipsaws. Delta hedging, as we've described in the last two chapters, is one way of minimizing the possibilities of either scenario occurring.

## Chapter 7 Major Learning Points

In this chapter, we learned how to create two popular bullish strategies—the bull call and the bull put spread—safely and responsibly. We also compared and contrasted the two strategies not only to each other, but also to other basic strategies such as the long call and the naked put.

Furthermore, we discussed how the Greeks work with these strategies and which sensitivities we need to hedge to minimize the risk while not compromising the maximum reward too much.

You can now understand which strategies you'll use in different circumstances and how time decay will affect your positions. You also can decide whether you want to use a long-term investment strategy (bull call) or a short-term income trading strategy (bull put). In either case, you can now start to develop succinct and definable filters for selecting the appropriate stocks for each strategy.

We're now going to continue with more strategies and identify two more that we can use profitably when we expect higher volatility in terms of price action, but where we're not quite sure about the direction. These are known as volatility strategies, and some traders swear by them.



## chapter 8

# Two Basic Volatility Strategies

What if you're not sure about the direction of a stock, but you feel sure that it's going to move significantly in one direction or another? Trading options gives you the ability to make low risk-high reward without getting the direction right! The two strategies we discuss in this chapter are straddles and strangles, which are both direction-neutral strategies.



### Straddles

The straddle involves the following steps:

- Step 1** Buy at-the-money (ATM) strike puts.
- Step 2** Buy ATM strike calls with the same expiration date.

This is a net debit transaction because you are paying for equal numbers of calls and puts. As such, the straddle is an expensive strategy in terms of a cash requirement. However, if you play the strategy correctly, it does not need to be a high-risk strategy even if the anticipated volatile price action doesn't materialize.

**Diagram 8.1.1 ● Straddle.**

The risk profile of a straddle is as follows:

Straddle	
<b>Maximum risk</b>	Net debit of the spread (that is, what you pay)
<b>Maximum reward</b>	Unlimited
<b>Breakeven on the downside</b>	Strike price <i>less</i> net debit
<b>Breakeven on the upside</b>	Strike price <i>plus</i> net debit
<b>Maximum risk on net debit or net credit</b>	100% risk on net debit

Notice that this strategy has two breakeven points: one below and one above the strike price. Remember that the call and put share the same strike price, which should be as near-the-money (NTM) (that is to say, as close to the current stock price) as possible.

## How to Find and Play a Good Straddle Opportunity

### Key Criteria

- Implied volatility and historical volatility
- Price consolidation chart pattern
- Stock prices
- Timing

Let's look at each criterion in isolation and then piece them together so we can define a coherent strategy and filtering technique for finding and executing straddle plays.

#### (i) Implied volatility and historical volatility

Ideally you need a situation where the current implied volatility for the stock is low compared with its average implied volatility over the medium term, say, anything from three months to one year. (Remember, implied volatility is a figure derived from matching the current option price with the Options Pricing Model.)

In theory, you also want a situation where implied volatility is lower than historical volatility over a one-month, two-month, and three-month period. (Remember, historical volatility relates solely to the stock price itself.) Some stock option chains contain price series, which consistently reflect implied volatility being far greater than historical volatility or vice versa. This is why comparing implied volatility to itself (rather than to historical volatility) over different time frames is a more sound way to assess whether implied volatility is too high or low.

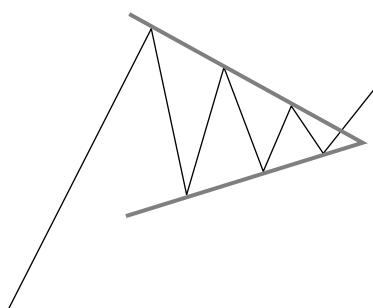
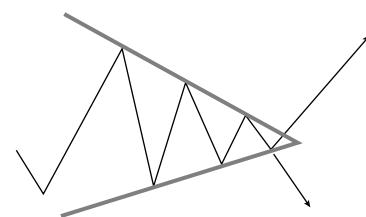
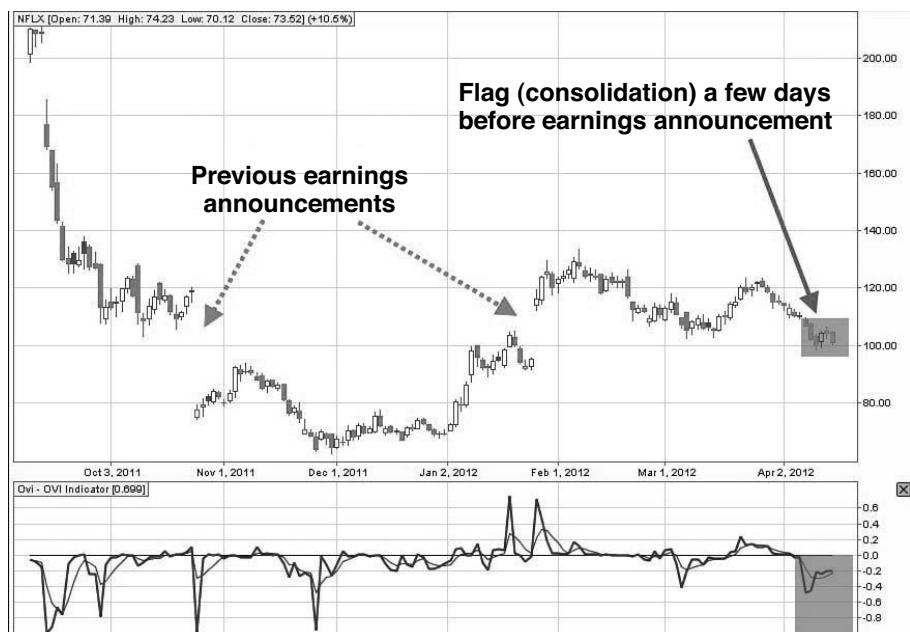
You need to be able to see this dynamic before executing a good straddle play. A stock might appear to have high implied volatility as compared with historical volatility, but that is only part of the story.

Other signs include looking at the wider market and the sector of the stock to assess whether the stock, sector, or market is poised for higher volatility. How can you tell whether this might be the case? First, you can look at the Market Volatility Index (VIX). The VIX is a volatility index as measured from the S&P 100 index. Generally the VIX will be low as prices rise and high (denoting high volatility) when prices are falling. This reflects the fact that prices tend to fall faster than they rise—hence the greater degree of volatility. Second, you should examine the price charts to see whether there are any signs of consolidation in the price pattern.

#### (ii) Price Consolidation

In Chapter 4, “The Basics of Technical Analysis,” we reviewed consolidation patterns, such as flags, triangles, and pennants. These price patterns are visual clues of declining historical volatility, and by implication you should investigate whether implied volatility is also declining. Furthermore, consolidation patterns often precede a breakout of some sort, which is precisely what you want to happen shortly after placing a straddle trade. Remember, with straddles you’re not concerned with direction; you’re interested in explosive price movement and a lot of it once you place the trade.

Consolidations manifest visually by way of individual price bar lengths getting shorter.

**Diagram 8.1.2 ● Consolidation price patterns for straddles.****Pennant****Triangle****Chart 8.1.1 ● NFLX (April 2012).**

Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

In this chart, NFLX has experienced several gaps from late 2011 to April 2012. It's now forming a bear flag pattern, and earnings are to be announced in a few days' time.

It is certainly not uncommon for NFLX to gap wildly, and it's done precisely that on the previous two earnings announcements in October 2011 and January 2012. Unfortunately, this will be reflected in the options premiums, which will be expensive as the floor specialists will anticipate the increased price volatility following the earnings announcement.

(i) Stock price

Generally you want to avoid stocks below \$10 for playing straddles, though I've done so successfully on stocks under \$10 when I was absolutely convinced of a breakout. Remember that you're looking for anticipated explosive price action, which can go in either direction. This means that you need enough room on the downside to have a profitable trade if there is a savage downward movement (thus increasing the value of the put).

(ii) Timing

The timing of a straddle is critical in terms of entry, time to expiration, and exit.

### *Entry*

After you identify a consolidating stock, determine whether there is any news anticipated on that stock—for example, earnings reports. Other anticipated news items also can be highly relevant, such as government reports (CPI, PPI, GDP, and Employment Report). The key is to place the trade before announcements are made, given that they might be the catalyst for the explosive move you're looking for. Ideally, aim to place your straddle trade a week or so before earnings because often implied volatility starts to rise as earnings season approaches. This is exactly what happened with NFLX in October 2011, January 2012, and April 2012.

### *Time to Expiration*

You must give yourself enough time to be right but not so much time that the options premiums are so prohibitively high that it's difficult to make a profit.

Ideally you trade straddles with expirations about three months out. Why? Because time value decays at its fastest one month before expiration and you'll want to exit your position (regardless of any price moves) with at least one month to expiration *at the latest*. The idea is to minimize your risk. With straddles, the greatest risk is time decay. If the stock price doesn't move much after you place the trade, you generally won't risk too much, provided you don't leave it too long. The exception is if implied volatility suddenly plummets through the floor, dragging down options premiums at the same time.

Also, by trading the three-month options for the straddle, these are not quite as sensitive to the implied volatility surge (before earnings) and dump (after earnings) as the one-month options are.

If you're playing a straddle in anticipation of a news event, such as earnings or a company announcement, you should exit quickly if there are no surprises. This way you'll minimize your risk exposure considerably, particularly if you were anticipating a surprise in the first place.

In conclusion, the time to expiration for a straddle can be anywhere from two to four months, but whatever happens, you should always exit the trade (if there's been no movement) with more than a month left to expiration.

### *Exit*

There are a number of scenarios regarding the exit of a straddle play. Let's take each one in turn:

- (i) After a news announcement where there was no surprise and no price movement.

Look to exit within a couple of days where the lack of price movement confirms the lack of surprise.

- (ii) After a news announcement where there was a surprise and requisite price movement.

You can play this scenario in any number of ways. If you have already set short-term realistic price targets (say, looking at support and resistance levels), then you can define your own exit strategy according to a prescribed set of rules defined within those techniques.

You can sell the profitable side after a price move and keep the unprofitable side in anticipation of a price retracement the other way, whereupon you sell that side too. For example, if a stock rises after a news announcement, you might want to take profits by selling the profitable calls. The puts at that point won't be worth much but will increase again if the stock price retraces downward. Having retained the put, you can then sell the puts once the retracement has occurred (provided there is still at least one month to expiration).

Another strategy is to keep the profitable side and manage it by way of a trendline to benefit from any continuing move. At some point, the trendline will be broken, whereupon you'll take your profits. If the move continues for some time, this would be a potential windfall.

- (iii) Never leave an open ATM option position on either side with less than one month left to expiration.

This rule takes precedence over all others.

Remember, when you open a straddle, both put and call are ATM and have no intrinsic value. With virtually 100 percent of the premiums being time value, they will decay rapidly in the final month.

- (iv) Preset profit targets.

For example, you reach a 50 percent profit objective and exit the trade regardless of what you think will happen with the stock price. The danger with preset profit targets is that they are subjective with no other considerations. Many traders are tempted to hold out too long waiting for the profit target to get hit, and if it doesn't get hit, the profits will inevitably start to slip away into a loss-making position.

## Straddles and the Greeks

<b>Delta</b>	The speed of a straddle's position accelerates dramatically NTM. Delta is negative when the stock price is low and accelerates into a positive value when the stock price is nearer and above the strike price. This shows you that when the stock price is lower than the strike price, further down movement is profitable, and when the stock price is higher than the strike price, continued up movement is required from the stock to make the straddle profitable. Delta's profile is somewhat S-shaped. Delta will generally be less than one (for one contract) when the stock price is ATM. This signifies that at that point, the value of the straddle will vary with the stock price, but at a reduced speed.
<b>Gamma</b>	Gamma is always positive with a long straddle and peaks where delta is rising at its steepest angle. This invariably occurs NTM, indicating that the straddle is sensitive to swings in the stock price at these levels.
<b>Theta</b>	Time decay affects the straddle detrimentally. Theta assumes a V shape and is almost entirely negative, forming its trough ATM. This makes sense because with a long straddle, you are buying two options premiums and are heavily exposed to time decay. Where the stock price is far lower than the straddle strike price, theta can have a fractional positive value.
<b>Vega</b>	Vega is entirely positive and forms a mountain-top shape, peaking ATM. With the vega value peaking ATM, a small increase in volatility is going to increase the value of the straddle position markedly.
<b>Rho</b>	Rho's impact is enhanced the longer there is left to expiration. Rho's profile is similar to delta's, forming an S shape by starting from a negative value when the asset price is low, to accelerating at its greatest degree NTM and tailing off as the stock price rises well beyond the straddle strike price.

### Example 8.1.1 KOSP Straddle

This is an old example, but a great one.

**Chart 8.1.2 ● KOSP price chart.**



Chart created on TradeStation®, the flagship product of TradeStation Technologies Inc.

In this example, the stock is at \$26.50 on May 30 and is forming a consolidation pattern directly after a big price surge. The chances of another big move (either way) are good. You're therefore looking to buy the KOSP 25 strike August straddle. Looking at the ask for each option, the calls cost 4.00 and the puts cost 2.15.

- 
- (a) Long straddle** Buy August 25 strike call @ 4.00.  
Buy August 25 strike put @ 2.15.
- 

The risk profile is as follows:

Straddle (a)	
<b>You pay (net debit)</b>	6.15
<b>Maximum risk</b>	6.15
<b>Maximum risk with 1 month to expiration</b>	c. 2.71 (44% of the trade)
<b>Maximum reward</b>	Unlimited on both sides
<b>Breakeven (downside)</b>	18.85
<b>Breakeven (upside)</b>	31.15
<b>Maximum risk on net debit</b>	100%
<b>Call implied volatility</b>	61.89%
<b>Put implied volatility</b>	62.97%
<b>90-day historical volatility high</b>	84.21%
<b>90-day historical volatility low</b>	40.55%

Is this a good trade? Well, only time could tell.<sup>1</sup> Implied volatility on the stock is not high compared with its average historical volatility (around 61.89 percent for the call and 62.97 percent for the put) for the previous three months, but the true test of whether the options are a good value is to compare implied volatility against itself. At the time of the trade, the two- to three-month options were not surging in terms of their implied volatility. The consolidation pattern on the stock price chart looks constructive for a straddle, where we're hoping for another big move.

The key is to look at the risk profile and evaluate your likely position with one month left to expiration (the middle line on the risk profile chart here). The maximum risk at that point in time would be around only 2.71 given that you still have the benefit of time

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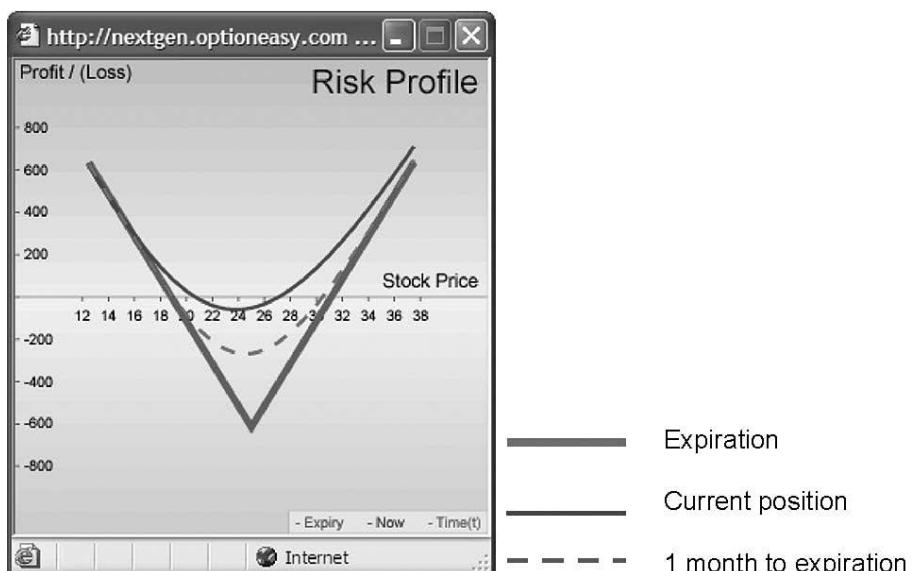
<sup>1</sup> By June 8, KOSP had reached \$36.00, and this straddle was worth around 12.00, almost a 100 percent return in just over one week. At this point, I'd be tempted to sell the profitable call and keep the almost worthless put in anticipation of downward retraction.

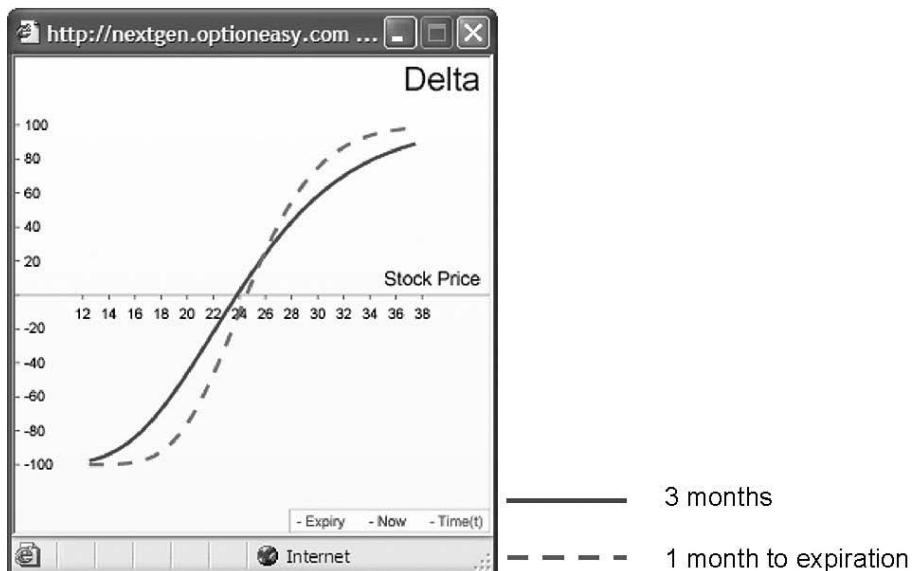
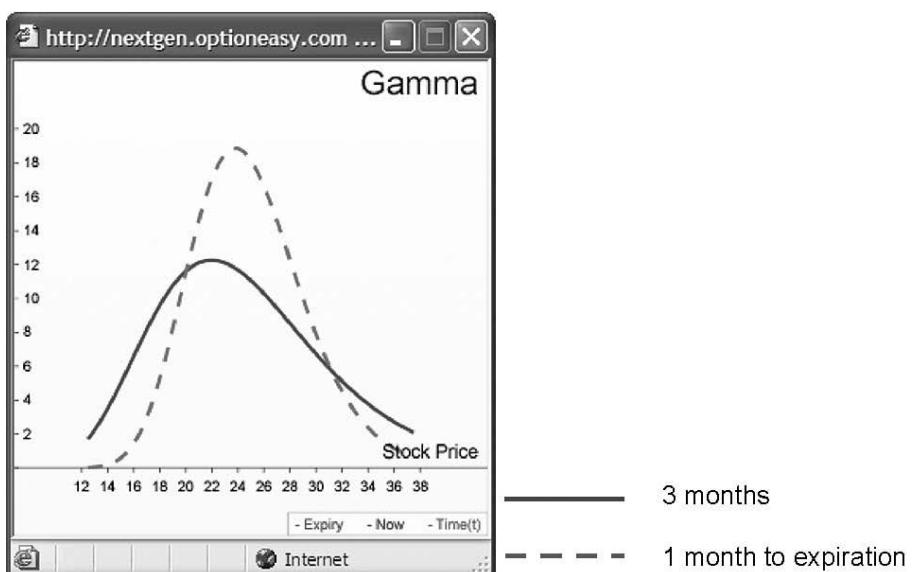
value even if the stock hasn't moved. The breakeven points are also slightly friendlier at that point in time, because they are a little closer to the central strike price.

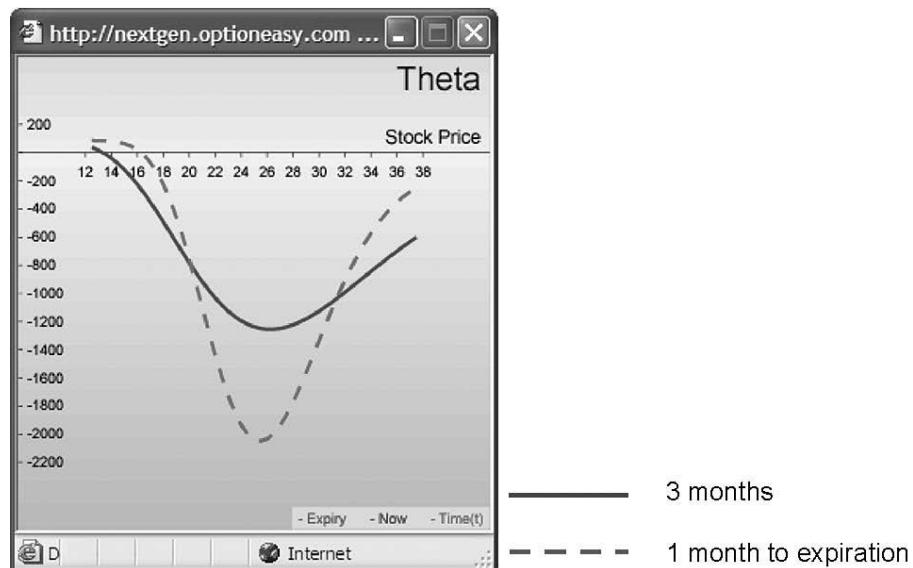
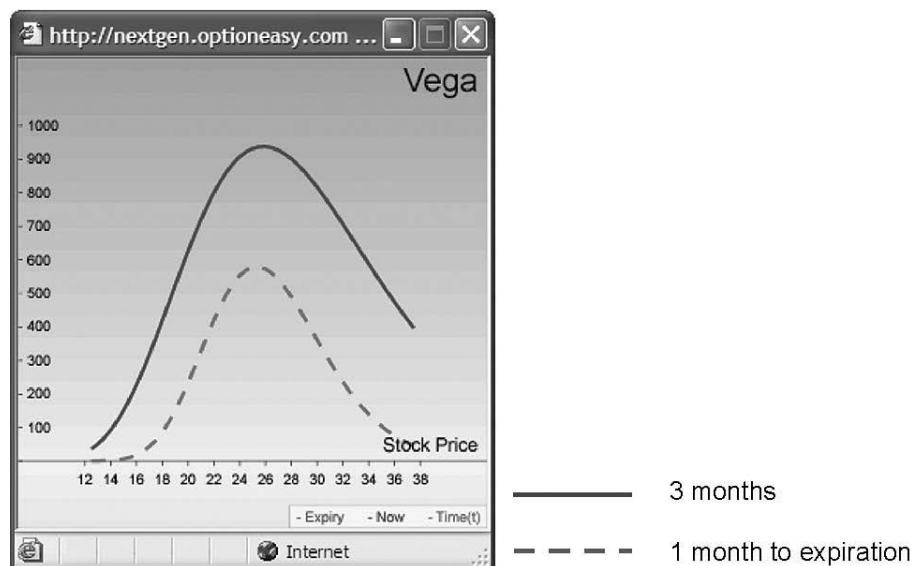
If you're looking at a three-month straddle, one method is to take the low of the last 60 trading days from the 60 trading-day high, divide that figure by two, and only make the trade if the cost of the (three-month) straddle is less. Here, the 60 trading-day high is \$28.87, and the 60 trading-day low is \$14.31. The difference is \$14.56, halved is \$7.28 and the cost of the straddle (6.15) is less, which therefore qualifies as being acceptable. If you're going to adopt this technique, make sure that you obey the other rules. Namely, there is an imminent news event and a consolidating chart pattern. These set the scene for a potentially explosive move.

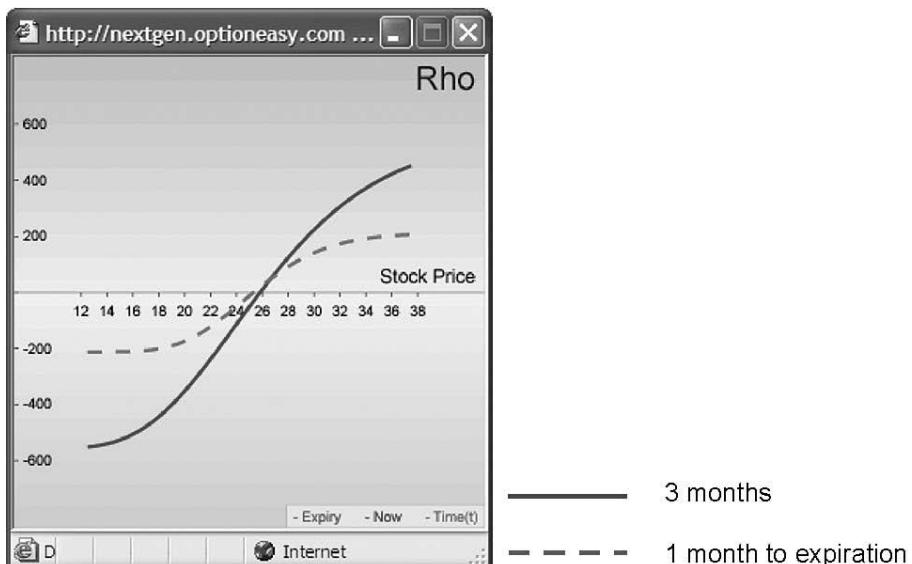
Note, if you're trading a two-month straddle, you'd do the same method but use the 40-day high-low difference. Similarly, if you're trading a 4-month straddle, use the 80-day high-low difference.

**Chart 8.1.3 ● KOSP straddle risk profile.**



**Chart 8.1.4** ● KOSP straddle delta profile.**Chart 8.1.5** ● KOSP straddle gamma profile.

**Chart 8.1.6** ● KOSP straddle theta profile.**Chart 8.1.7** ● KOSP straddle vega profile.

**Chart 8.1.8 ● KOSP straddle rho profile.**

## Strangles

The strangle involves the following steps:

**Step 1** Buy on-the-money (OTM) strike puts.

**Step 2** Buy OTM strike calls with the same expiration date.

This is a net debit transaction given that you are paying for equal numbers of calls and puts. Because you are buying OTM options where there is no intrinsic value, the strangle is a cheaper alternative to the straddle. However, it also has a slightly different risk profile, although the basic rules are almost identical.

### Strangle



The risk profile of a strangle is as follows:

<b>Strangle</b>	
<b>Maximum risk</b>	Net debit of the spread (that is, what you pay)
<b>Maximum reward</b>	Unlimited
<b>Breakeven on the downside</b>	Lower (put) strike price <b>less</b> net debit
<b>Breakeven on the upside</b>	Higher (call) strike price <b>plus</b> net debit
<b>Maximum risk on net debit</b>	100% risk on <b>net debit</b>

Again, this strategy has two breakeven points: one below and one above the strike price. The call and the put have different strike prices; the put strike price is below the current asset price, and the call strike price is above the current stock price. Because of the way calls and puts work, both strikes are OTM. In selecting your strike prices for the strangle, you should make them as close to equidistant from the current stock price as possible.

### Example 8.2.1 KOSP strangle

We're looking to buy the KOSP August 20 strike put and 30 strike call with the current stock price at \$26.50. Looking at the ask for each option, the call premium is 1.85 and the put 0.60. We also compare it to the straddle just noted where we bought the 25 strike calls for 4.00 and the 25 strike puts for 2.15.

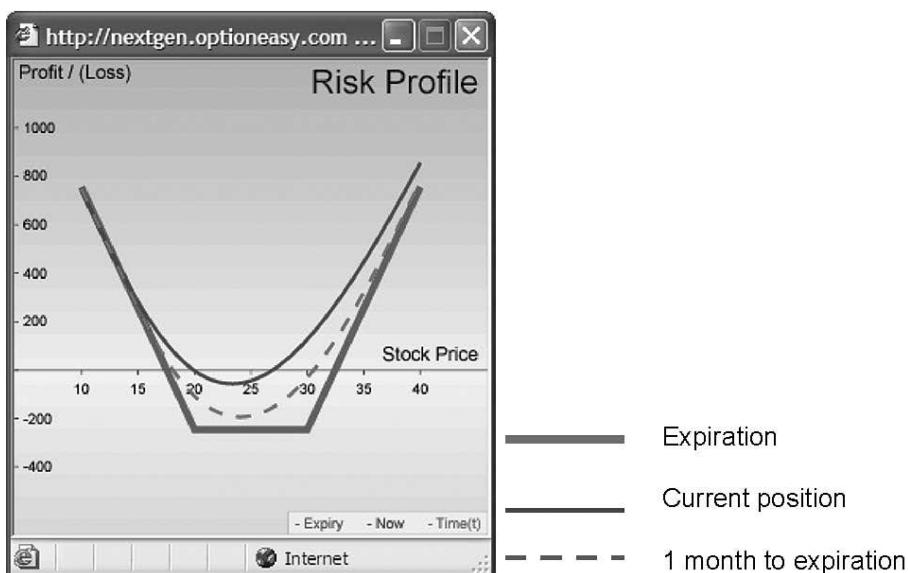
<b>(b) Long strangle*</b>	Buy August 20 strike put @ 0.60 and Buy August 30 strike call @ 1.85
---------------------------	-------------------------------------------------------------------------

\* By June 8, KOSP had reached \$36.00, and this strangle was worth more than 7.00, almost a 300% return in just more than one week. Because of the sharp rise, the strangle has been even more successful than the straddle because of its low initial cost.

	<b>Straddle (a)</b>	<b>Strangle (b)</b>
<b>You pay (net debit)</b>	6.15	2.45
<b>Maximum risk</b>	6.15	2.45
<b>Maximum risk with one month until expiration (estimated)</b>	c. 2.71 (44% of the trade)	c. 1.91 (78% of the trade)

	Straddle (a)	Strangle (b)
<b>Maximum reward</b>	Unlimited on both sides	Unlimited on both sides
<b>Breakeven (downside)</b>	18.85	17.55
<b>Breakeven (upside)</b>	31.15	32.65
<b>Maximum risk on net debit</b>	100%	100%
<b>Call implied volatility</b>	61.89%	61.26%
<b>Put implied volatility</b>	62.97%	64.77%
<b>90-day historical volatility high</b>	84.21%	84.21%
<b>90-day historical volatility low</b>	40.55%	40.55%

**Chart 8.2.1** ● KOSP strangle risk profile.



## Comparison Between the Strangle and the Straddle

- With a strangle, we exchanged wider breakeven points for lower risk, as compared with the straddle. This means the breakevens will be a little more difficult to reach, but at least we're paying far less to achieve that.
- The net debit and maximum risk are far lower for the strangle.

- The estimated maximum risk of the strangle with one month left until expiration forms a higher percentage of the total maximum risk of the trade. However, the total maximum risk of the strangle is far less than the straddle.
- Both strategies offer an unlimited maximum reward, but the straddle's risk profile is much steeper than the strangle's. If KOSP's stock price reaches either \$10 on the downside or \$40 on the upside, the straddle's profit at expiration would be 8.85, whereas the strangle's would be only 7.55. The strangle, however, would show a greater percentage return because of its lower cost basis.
- For both strategies, the maximum risk is 100 percent of the net debit of the trade.

## Psychology of Volatility Strategies

Although straddles and strangles are exciting strategies to trade, it's important to understand that they also can be challenging from a psychological point of view. The best way of illustrating this is by describing a couple of other experiences I've had.

In March 2003, I found a great straddle opportunity on Expedia (EXPE), which was trading at around \$34.00 and about to announce earnings the following week. The stock had recently split, and the second Gulf War was imminent. The stock was forming a consolidation pattern, and my judgment was that a big move was on the cards. So, having conducted all the necessary analysis and calculations, I put on the July 35 strike straddle at a cost of 8.20. The April expiration was too close, so I decided to go for the more conservative July expiration, yet at the same time I expected to exit this trade within two weeks. I had also calculated that there was strong support around three points lower. The other thing I should mention is that I was due to travel on business two days after putting the trade on.

The day after I placed the trade, EXPE dropped down to the support level. My trading plan was to remain in the trade until after earnings were announced. But within 24 hours of placing the trade, I could see that I could already exit with a 10 percent profit and go on my travels in peace. So that's precisely what I did. I exited the position with the stock price precisely on the support level, and as the stock rose I congratulated myself on my genius!

The following week, Expedia announced earnings, which were better than expected. It was also announced that there had been an offer for the entire

company, which resulted in the stock price rising by more than \$20 in the following days. How smart do you think I felt now? My straddle would have been worth at least 24 including time value, almost 300 percent what I had paid for it! I had disobeyed my trading plan and therefore relinquished a massive profit. Even though I made a profitable trade, the consequences of disobeying my trading plan made it a bitter disappointment.

The opposite of this trade was another one I did on HOV, which I had been monitoring in May 2004. The stock was perfectly set up, so I put on the August straddle. Not only were earnings due to be announced, but the Fed was announcing an interest rate rise during the same week. I was therefore convinced that having passed all the tests, HOV was due a big move.

Earnings were way ahead of expectations, and the stock rose by \$4.00 before retracing—not enough to make me swimming in profit yet, but not a bad start. The Fed announcement was in line with expectations, so now I was expecting HOV to steeple upward. To be fair, it did try! But every time it tried to break out, back down it came. Having learned from my EXPE experience, my trading plan was to be more patient this time and wait the maximum amount of time (that is, until one month before expiration). Needless to say, this wait was agonizing until eventually HOV plunged downward in early July, allowing me to exit with only a modest profit.

Do you see how the EXPE and HOV trades differed and how challenging they were from a psychological point of view? With EXPE, I made a small but quick profit in advance of a travel engagement. With HOV, I had to wait and wait. In both instances, there were serious temptations to stray from the trading plan. In the case of EXPE, there was no excuse. In the case of HOV, I should have exited after there was no serious movement following both news announcements. You can now see how strictly you must adhere to the trading plan straightjacket when you trade this kind of strategy.

## Chapter 8 Major Learning Points

In this chapter, we learned the basic rudiments of how to play an anticipated surge in volatility. The straddle is simple to execute and well documented, whereas the strangle is also a sound strategy for playing volatility.

The straddle has, on balance, more advantages provided you play the strategy according to the rules outlined here. The rules are designed to minimize your risk while allowing you to maintain your chances of a high potential reward. Ultimately, the more you minimize the cost of entry, the steeper the straddle risk profile will be and the faster you'll emerge into a profitable position

as the stock starts to move in either direction away from the strike price. By exiting the position with at least one month left to expiration, you're not over-exposing yourself to time decay. Yes, you might encounter the odd loss here and there if the stock doesn't move at all, but you're not risking the bulk of the trade if you adhere to this rule with strict discipline.

The straddle is, in this context, a low-risk and high-reward strategy, which many options traders select as their one and only volatility strategy. You need to filter for the opportunities, and the filter should include the following components:

- Optionable.
- Consolidating chart pattern.
- Implied volatility lower now than the 90-day implied volatility average.

(There is a tool for this on [www.illuminati-trader.com](http://www.illuminati-trader.com) that specializes in finding good straddle opportunities.)

- Implied volatility should not have surged and should not be higher than at the previous earnings seasons. Ideally, you should look a week or so before the next news event and before the pre-event implied volatility surge.

(The [www.illuminati-trader.com](http://www.illuminati-trader.com) website has implied volatility charts for the one-month and three-month ATM options. Notice that the three-month option implied volatility readings are less sensitive than the one-month option implied volatility. This is a stark visual representation of how risky it is to trade short expiration options that have no intrinsic value. The risk factor is that the implied volatility swings for such options can be wild. Therefore, with the straddles and strangles, try to find expirations around three months out.)

- Sixty trading-day rule with three-month expiration straddles. Effectively, this is approximating the comparison between implied volatility (expressing the cost of the options) and historical volatility (the stock price fluctuations over the last three months).

Remember, with two-month straddles you adjust to a 40-day rule, and with four-month straddles, you adjust it to an 80-day rule.

Next we look at two strategies that make profits if the share price remains range-bound for a period of time—if you like the antithesis of straddles and strangles!

## chapter 9

# Two Basic Sideways Strategies

What if a stock has run out of steam and you anticipate a period of consolidation or lower volatility for a period of time? What if you have identified a range-bound stock and you want to take advantage of this price pattern behavior? You can achieve this by trading low-risk, high-reward options strategies! The two strategies discussed in this chapter are the butterfly and the condor, both of which produce—if the price remains within a certain price range, determined by the strike prices selected.

## Butterflies

The butterfly involves the following steps (you can use all calls *or* all puts with the butterfly—you cannot mix the two):

### **Butterfly with calls**

<b>Step 1</b>	Buy one lower strike (ITM) call	There are two key points here:
<b>Step 2</b>	Sell two middle strike ATM calls	<ul style="list-style-type: none"> <li>• The ratio between buying the ITM call, selling the ATM calls, and buying the OTM call is 1:2:1.</li> </ul>
<b>Step 3</b>	Buy one higher strike (OTM) call	<ul style="list-style-type: none"> <li>• The distance between the three adjacent strikes must be equal, with the middle strike being ATM or as close to ATM as possible.</li> </ul>

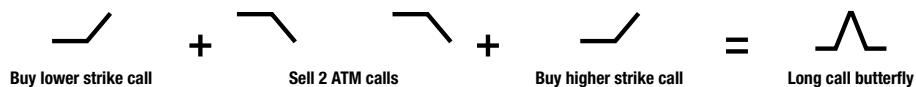
Or:

### Butterfly with puts

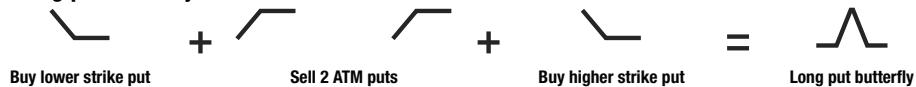
<b>Step 1</b>	Buy one lower strike (OTM) put	There are two key points here: <ul style="list-style-type: none"> <li>The ratio between buying the ITM call, selling the ATM calls, and buying the OTM call is 1:2:1.</li> <li>The distance between the three adjacent strikes must be equal, with the middle strike being ATM or as close to ATM as possible.</li> </ul>
<b>Step 2</b>	Sell two middle strike ATM puts	
<b>Step 3</b>	Buy one higher strike (ITM) put	

The butterfly is a net debit transaction given that the ITM and OTM options you buy are more expensive than the two ATM options you sell to create the strategy spread. Remember, in the real world, you buy near the ask and sell near the bid, and even where you set a limit order (which you should do), you won't have much chance of being filled by being over ambitious on the price of entry. Therefore, find an overall price that you'd be happy to make the trade at, having calculated and considered your risk, reward, and breakeven scenarios.

#### Long call butterfly.



#### Long put butterfly.



The risk profile of a butterfly is as follows, regardless of whether you use all calls or all puts:

Long Butterfly	
<b>Maximum risk</b>	Limited to the net debit of the spread (what you pay)
<b>Maximum reward</b>	Limited to the difference between the adjacent strike prices less the net debit paid.
<b>Breakeven on the downside</b>	Lowest strike price <b>plus</b> net debit paid.
<b>Breakeven on the upside</b>	Highest strike price <b>less</b> net debit paid.
<b>Maximum risk on net debit</b>	100% risk on <b>net debit</b> .

As with straddles and strangles, the butterfly has two breakeven scenarios: one to the downside and one to the upside. There the shared characteristics stop. The butterfly can yield only a limited profit, and that can occur only at the middle strike price, the one nearest to the money.

## How to Find and Play a Good Long Butterfly

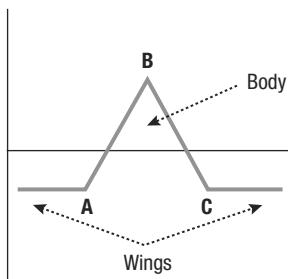
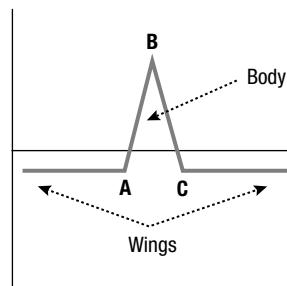
*Key criteria:*

- Rangebound stock pattern
- Implied and historical volatility
- Stock price
- Timing

Again, we'll look at each factor in isolation and then build a coherent methodology of finding and filtering for long butterfly trades.

### Rangebound Price Chart Pattern

We would like to find price patterns where we can identify clear lines of support and resistance to such a degree that we feel comfortable that the price remains within those bounds. There is never a guarantee of such events materializing or not materializing, but ultimately we're simply looking to reduce our risk wherever possible. Fortunately, the butterfly is an innately low-risk strategy in the first place, but we want to now increase our probability of success.

**Wide butterfly****Narrow butterfly****Wide butterfly characteristics:**

- 1 Strikes A and C are wider apart. B is equidistant from them both.
- 2 Greater maximum risk than with narrow butterfly.
- 3 Lower maximum reward (as evidenced by height of B).
- 4 Higher probability of profit (because a wider span above breakeven).

**Narrow butterfly characteristics:**

- 1 Strikes A and C are closer together. B is still equidistant from them both.
- 2 Lower maximum risk than with wide butterfly.
- 3 Higher maximum reward (but less chance of achieving it).
- 4 Lower probability of profit (because of the narrow span above breakeven).

So Step 1 is to find a price pattern with clear and distinguishable support and resistance. The wider the butterfly, the less risky your trade is in terms of probability of success, but the more risky it is in terms of the net debit to pay for it.

**Implied Volatility and Historical Volatility**

In a perfect long butterfly world, you look for stocks that have experienced higher than their average implied volatility levels but where you expect the price action to calm down, leading to lower volatility levels for the duration of your trade.

This is easier said than done because even lowering volatility levels doesn't necessarily help us with regard to the *direction* of price action, and the success of a long butterfly depends on price action remaining range-bound (and, depending on where you currently are within that range, price direction can be a vital factor). So be aware that before you start looking at volatility levels in this way, you must ensure you're dealing with a price series with distinctive and strong support and resistance lines. Therefore, you should look at trades where the stock price is right in the middle of those support and resistance levels, equidistant from both. When this is the case, your lowest strike will be at or just below support, the highest strike price will be at or just above resistance, and the middle strike will be equidistant from them both and as close to ATM as possible.

## Stock Price

Again, it's better to avoid the low-priced stocks (under \$20) even though you're concentrating here on price action keeping within a specific trading range. You want a wide enough wingspan on the butterfly to improve your probability of profit, even if you'll end up paying a bit more for it.

## Timing

As with all options trades, timing is crucial for long butterflies. The following sections discuss some rules for trading this strategy.

### *Entry*

After you identify your long butterfly stock, you need to make sure that there is *no* news coming soon. Ideally, all the news relating to that particular stock will have just passed—that is, earnings reports and any announcements concerning the stock or its sector. Furthermore, it's best if some of the major government announcements, such as the CPI, PPI, GDP, and Inflation Report, have been made recently too. The idea here is that you do *not* want any surprises that might disturb the rangebound pattern of the stock.

### *Time to Expiration*

The optimum timing for selecting expirations for your long butterfly is all about balance. Time decay works in your favor because the longer you leave it, the more chance the price has of breaching one of your long butterfly's wings. This leaves two potential dilemmas:

- If you choose an expiration date that is too close (under one month), you'll be faced with a large net debit and hence risk because the only option of any real value will be the deep ITM option, which you buy (either calls or puts).
- If you choose an expiration date that is too far away (more than two months), you're increasing the probability that the price will breach one of the wings of the butterfly and put you into a loss-making position.

I've found that the answer is to choose between one and two months for the optimal time frame for long butterflies. The reason is that it gives the ATM options (that you are selling as part of the spread) enough time to be of *some* value to reduce your net debit—and hence, risk. At the same time, you're not giving the position too much time to breach the wings of the butterfly.

### *Exit*

As time progresses toward expiration, your maximum potential profit increases. So it makes sense to let the long butterfly run on as close as you can to expiration without risking the underlying price pattern breaching the wings. If you have to exit before expiration, you simply unravel the spread by selling the options you bought and buying the options you sold.

Make sure you're paying attention to likely timing of any relevant news items and their possible content. Anything untoward could lead to an explosion of volatility, which could then harm your position. You don't want to be in a long butterfly position at the outset of any major news about your stock, the appropriate sector, or industry.

### **Butterflies and the Greeks**

<b>Delta</b>	Delta is positive, peaking at the lower strike price when the stock price is below the middle strike price. This means that a positive move upward from the lower strike price is beneficial to the butterfly position.  Delta is neutral (zero) when the stock price is equal to the middle strike price. At this point we require no movement in the stock price to reach maximum profitability at expiration. Delta is negative, reaching its trough at the higher strike price. This means that at this level, we require the stock price to fall for our butterfly position to move into profit. <i>The Greek profiles for the call butterfly are identical to those of the put butterfly.</i>
<b>Gamma</b>	Gamma troughs when the stock hits the middle strike price, thus demonstrating that movements away from this area would be detrimental to the butterfly position. Gamma peaks at or below the lower strike price and at or above the higher strike price.
<b>Theta</b>	Theta looks like an inverted gamma on the Greek profile charts, peaking at the middle strike price and troughing at or below the lower strike and at or above the higher strike. Can you now see the logic of why this is so?
<b>Vega</b>	Vega resembles gamma with butterflies, troughing at the middle strike price and peaking at or below the lower strike price and at or above the higher strike price. Again, can you now see the logic of this?
<b>Rho</b>	Rho is positive, peaking at the lower strike price when the stock price is below the middle strike price. Rho is neutral (zero) when the stock price is equal to the middle strike price. Rho is negative, reaching its trough at the higher strike price when the stock price is above the middle strike price.

**Example 9.1.1 FRE butterfly**

I've highlighted this stock as a timeless example because it's a good example of strong support and resistance lines. I don't trade butterflies personally, but let's take a look at this nevertheless. Remember, with butterflies you can do either all calls or all puts but never mix them up. For illustration purposes, we do both so we can compare. We also compare a narrow butterfly (a) with a wide butterfly (b) and assess which one we prefer.

We are going to compare a 60-65-70 (narrow) strike butterfly with a 55-65-75 (wide) strike butterfly using all calls and all puts for each one, giving us four examples.

**Chart 9.1.1 ● FRE price chart**



Chart created on TradeStation®, the flagship product of TradeStation Technologies Inc.

**(a) Narrow Butterfly: Strikes of 60, 65, and 70**

As you can see from the following table, there's not a massive difference between the call butterflies and the equivalent put butterflies. Note, in practice we place the three legs as a single limit order anyway.

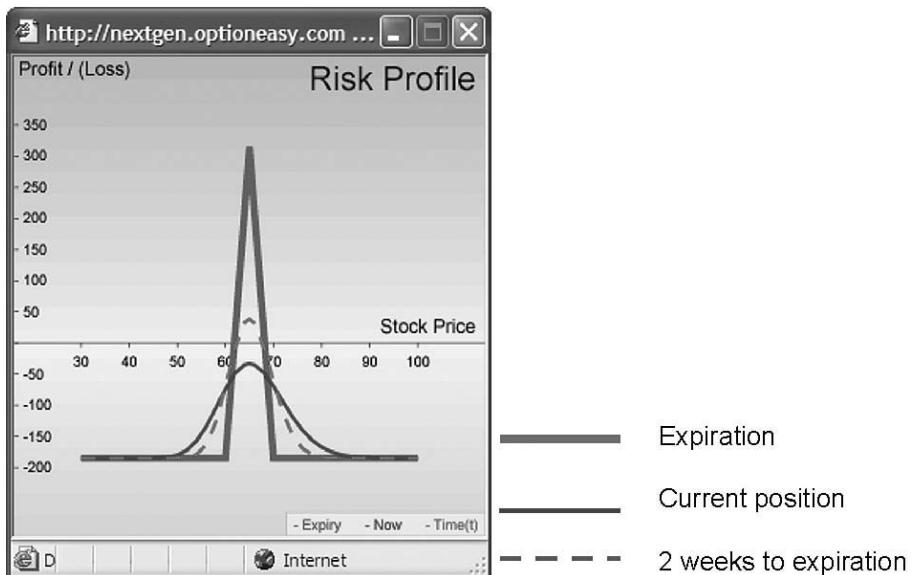
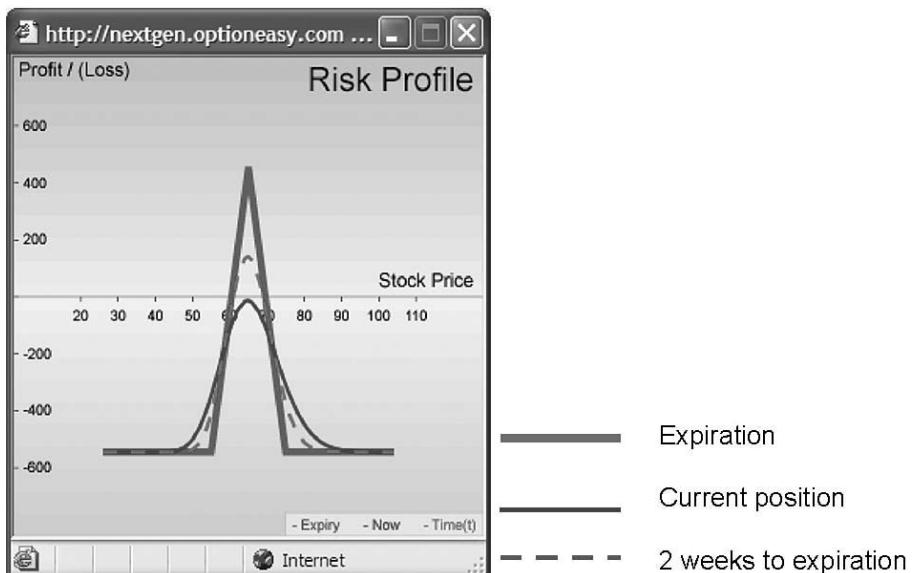
	<b>Narrow call butterfly</b>	<b>Narrow put butterfly</b>
Buy 60 strike option (ask)	9.10	0.25
Sell 2 × 65 strike options (bid)	$4.50 \times 2 = 9.00$	$0.80 \times 2 = 1.60$
Buy 0 strike option (ask)	1.75	3.00
<b>Net debit</b>	1.85	1.65
<b>Maximum risk</b>	1.85	1.65
<b>Maximum reward</b>	3.15	3.35
<b>Maximum ROI</b>	170.27%	203.03%
<b>Breakeven (downside)</b>	61.85	61.65
<b>Breakeven (upside)</b>	68.15	68.35
<b>Maximum risk on net debit</b>	100%	100%

With the wide butterfly example, the risk, reward, breakeven analysis is identical with calls and puts:

#### (b) Wide Butterfly: Strikes of 55, 65, and 75

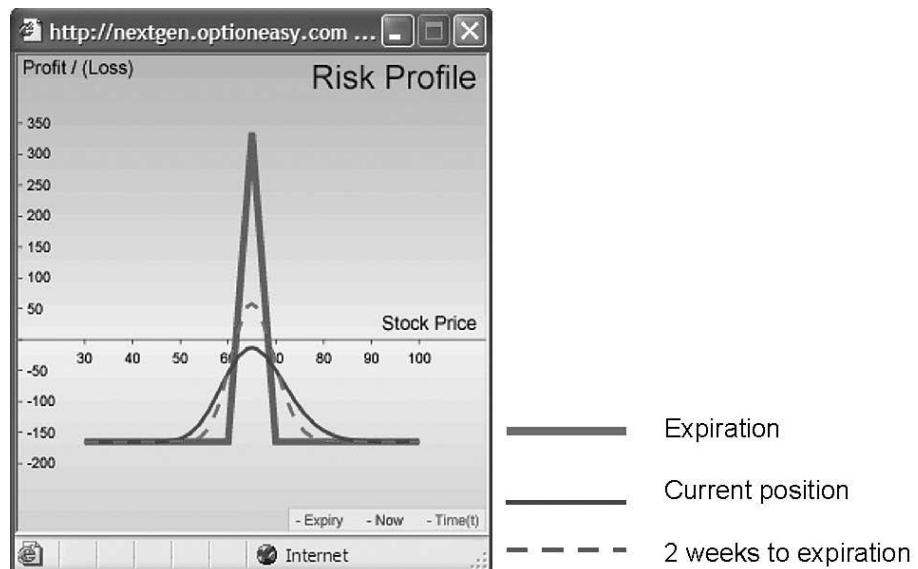
	<b>Wide Call Butterfly</b>	<b>Wide Put Butterfly</b>
Buy 55 strike option (ask)	14.00	0.15
Sell 2 × 65 strike options (bid)	$4.50 \times 2 = 9.00$	$0.80 \times 2 = 1.60$
Buy 75 strike option (ask)	0.45	6.90
<b>Net debit</b>	5.45	5.45
<b>Maximum risk</b>	5.45	5.45
<b>Maximum reward</b>	4.55	4.55
<b>Maximum ROI</b>	83.49%	83.49%
<b>Breakeven (downside)</b>	60.45	60.45
<b>Breakeven (upside)</b>	69.55	69.55
<b>Maximum risk on net debit</b>	100%	100%

The main comparison to make, therefore, is whether to choose the narrow butterfly or the wide butterfly. The wide butterfly has a greater probability of success but has a far lower maximum reward.

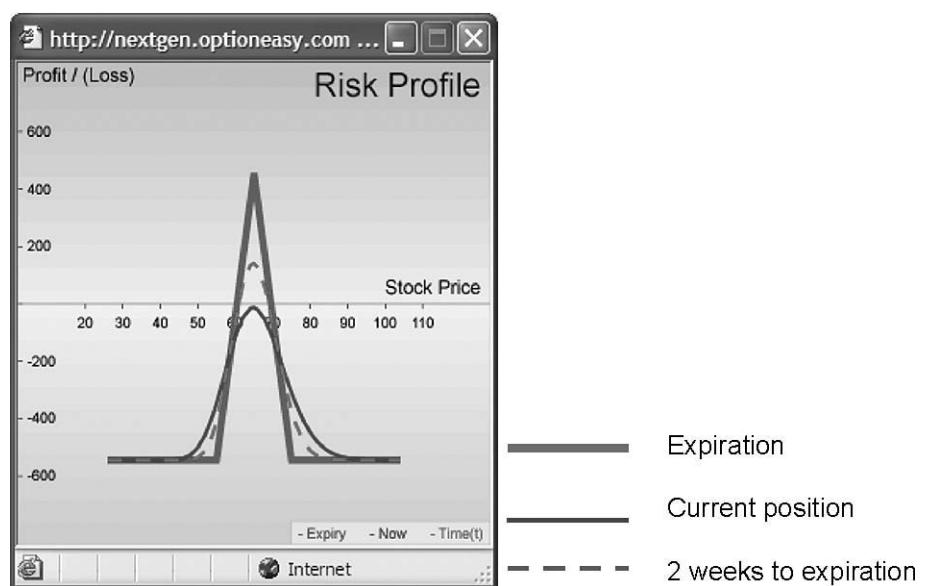
**Chart 9.1.2a ● FRE long call butterfly risk profile (narrow).****Chart 9.1.2b ● FRE long call butterfly risk profile (wide).**

See how the wide butterfly has a wider span; the price scale should give you a clue because this one is in increments of ten and the narrow butterfly price scale is in increments of just five.

**Chart 9.1.3a ● FRE long put butterfly risk profile (narrow).**



**Chart 9.1.3b ● FRE long call butterfly risk profile (wide).**



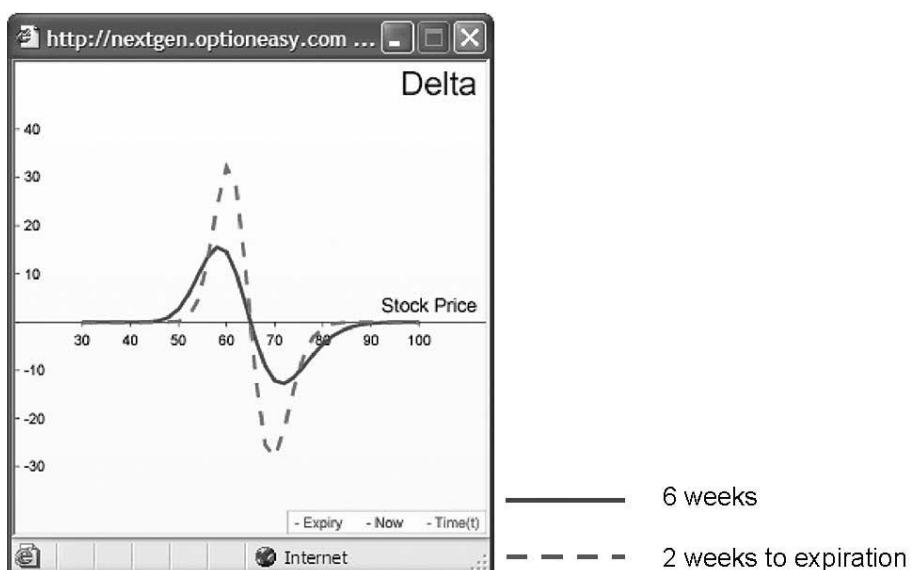
### Risk profiles of all butterflies\*

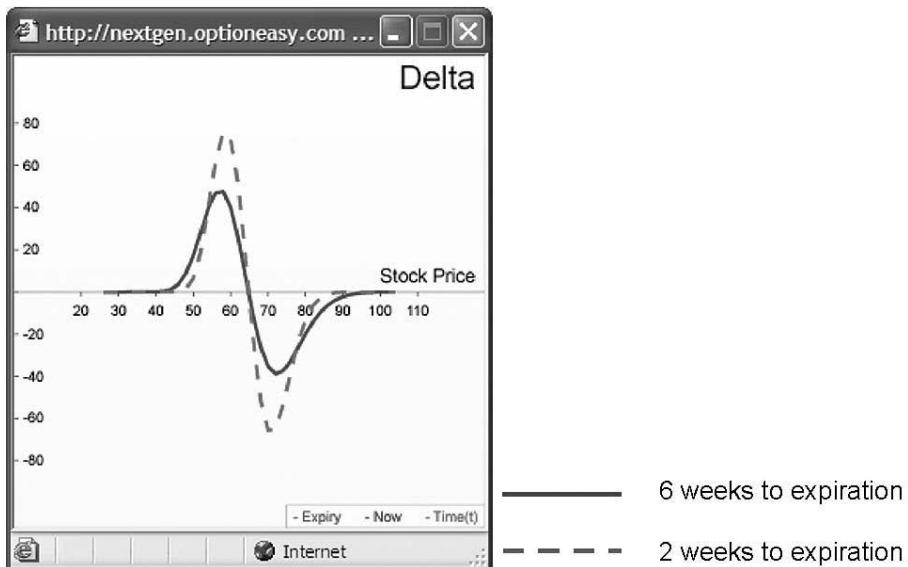
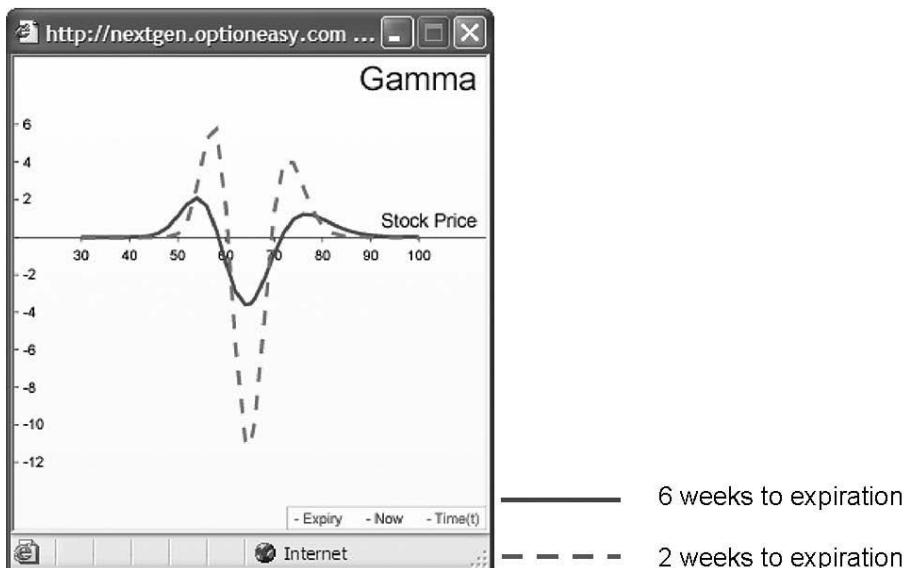
	Narrow Call Butterfly	Wide Call Butterfly	Narrow Put Butterfly	Wide Put Butterfly
Buy 55 strike option (ask)		14.00		0.15
Buy 60 strike option (ask)	9.10		0.25	
Sell 2 × 65 strike options (bid)	4.50 × 2 = 9.00	4.50 × 2 = 9.00	0.80 × 2 = 1.60	0.80 × 2 = 1.60
Buy 70 strike option (ask)	1.75		3.00	
Buy 75 strike option (ask)		0.45		6.90
Net debit	1.85	5.45	1.65	5.45
<b>Maximum risk</b>	1.85	5.45	<b>1.65</b>	5.45
Maximum reward	3.15	4.55	3.35	4.55
<b>Maximum return on investment</b>	170.27%	83.49%	<b>203.03%</b>	83.49%
Breakeven (downside)	61.85	60.45	61.65	60.45
Breakeven (upside)	68.15	69.55	68.35	69.55
Maximum risk on net debit	100%	100%	100%	100%
<b>Probability of profit</b>	35.33%	<b>45.06%</b>	36.70%	<b>45.06%</b>

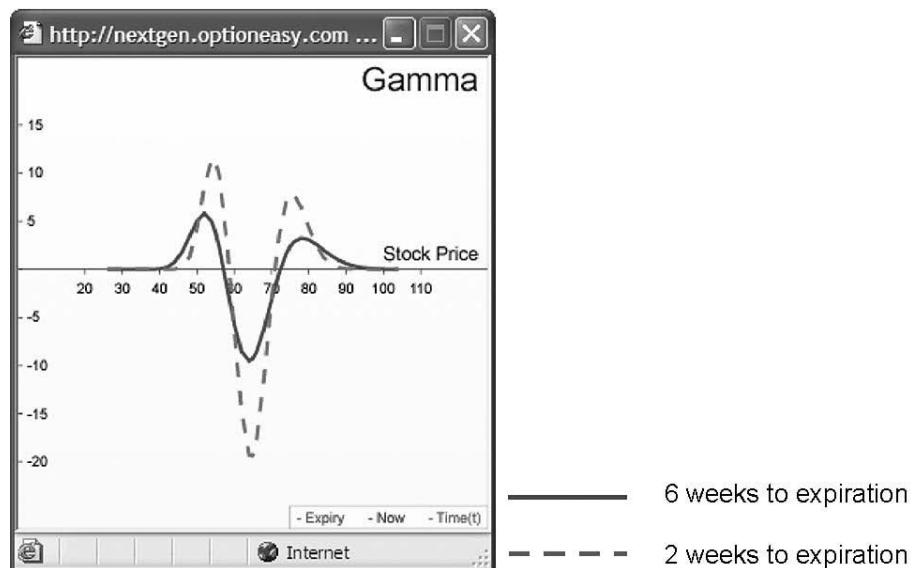
\*The July options expired on Friday, July 20, at which time, FRE closed at \$67.56. On the basis of having traded the narrow put butterfly at a risk of 1.65, your position at expiration was worth 2.44—in other words, a 48 percent profit on this trade. The bought 60 strike put would have expired worthless; thus you lose the 0.25 you paid for it. The sold 65 strike puts would have expired worthless; thus you would keep the entire 1.60 premium that you received. And the 70 strike put you bought for 3.00 was worth only 2.44 at expiration, thus losing 0.56. Subtracting 0.25 and 0.56 from 1.60, you therefore made a total of 0.79 (48 percent) *profit* in just six weeks on your original stake of 1.65. Not bad for an unseen example of a strategy I don't trade!

The narrow put butterfly in this example (Chart 9.1.3a) seems to be the best choice in terms of maximum reward and minimum risk. But in saying that, it's still possible to lose 100 percent of what you paid. And given the low probability of success (just 36.70 percent) and the narrow breakeven bands (which partly cause that low probability), I would be more comfortable with a wider spread. However, a wider butterfly here means significantly reduced maximum profit, and there is still the possibility of a 100 percent loss. On balance, I wouldn't do this trade even if the support and resistance lines were compelling in themselves.

**Chart 9.1.4a ● FRE butterfly delta profile (narrow).**

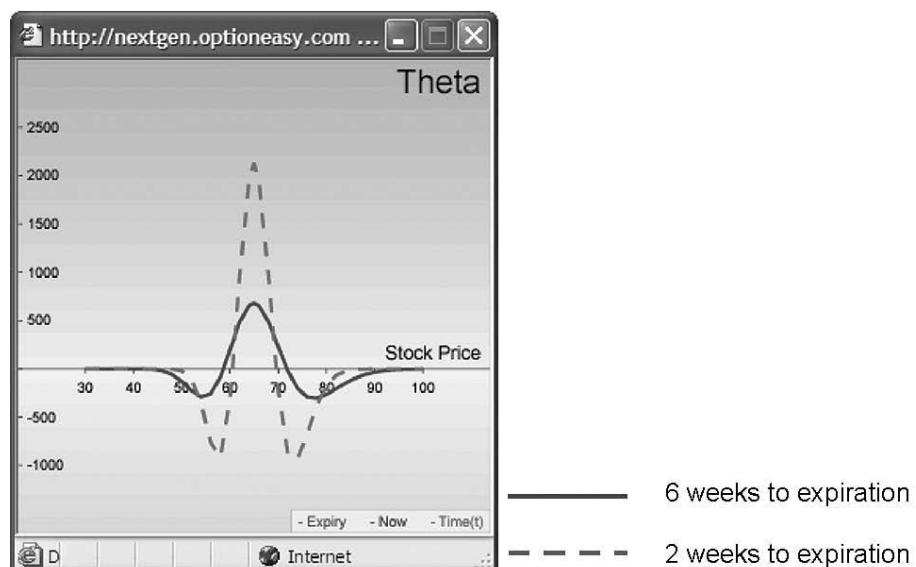


**Chart 9.1.4b** ● FRE butterfly delta profile (wide).**Chart 9.1.5a** ● FRE butterfly gamma profile (narrow).

**Chart 9.1.5b** ● FRE butterfly gamma profile (wide).

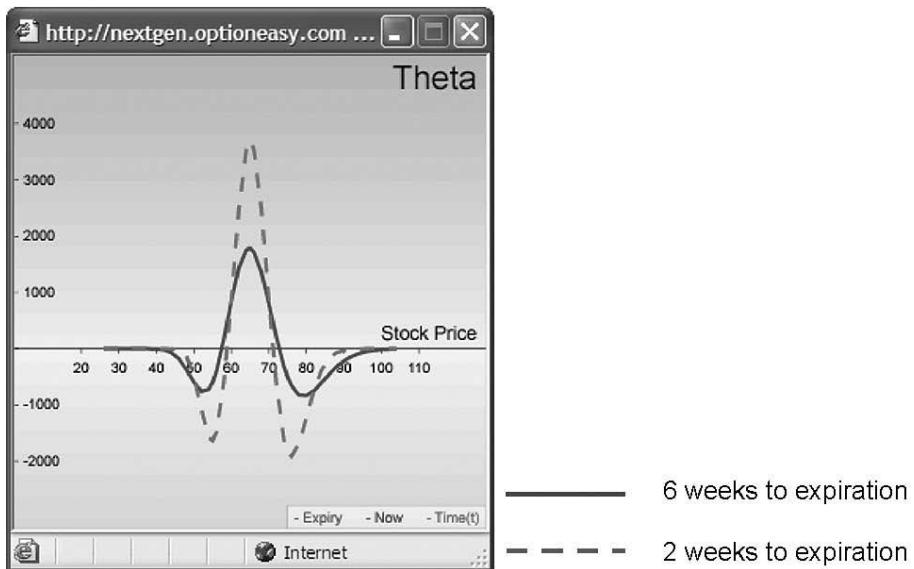
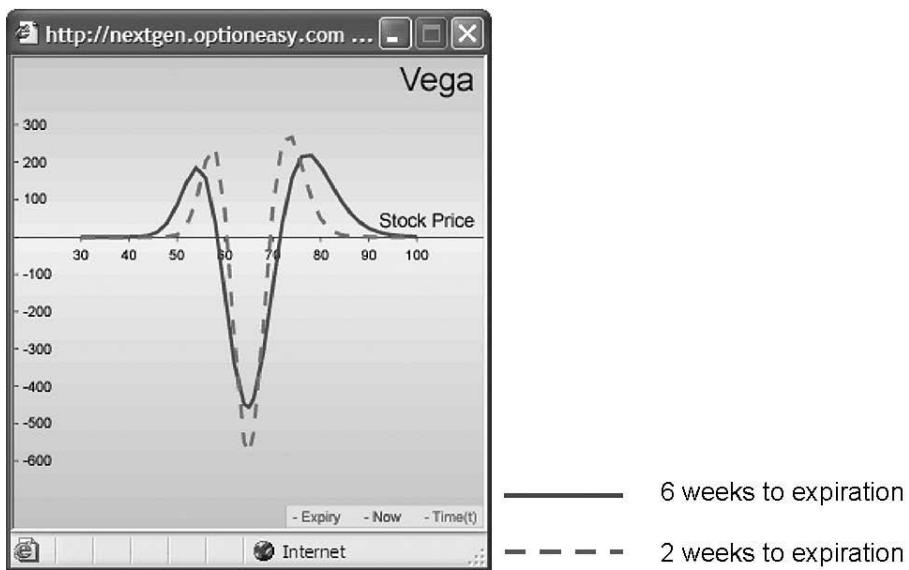
— 6 weeks to expiration

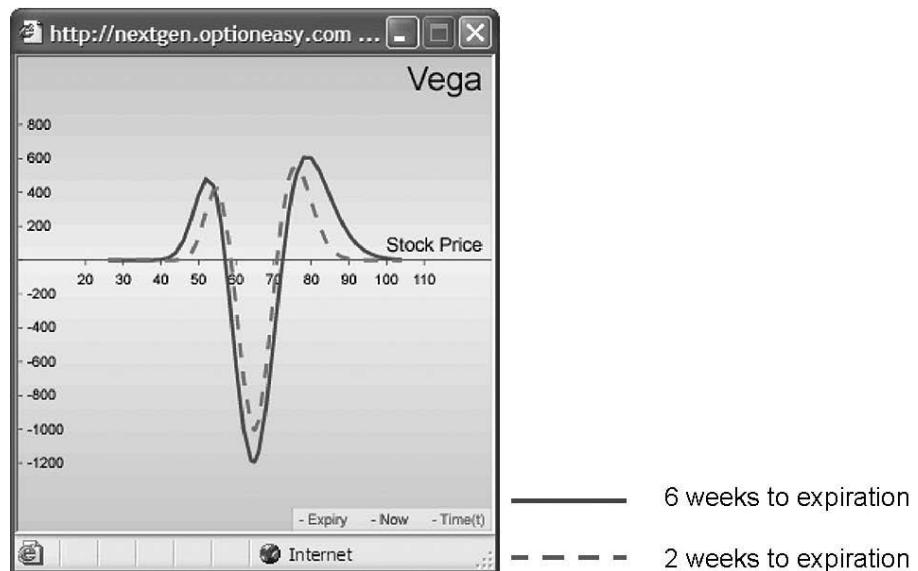
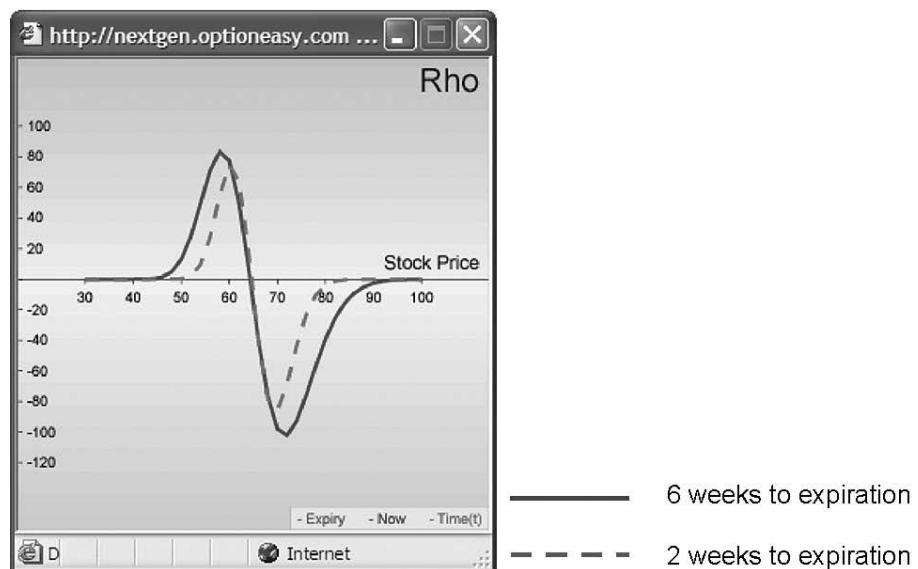
- - - - - 2 weeks to expiration

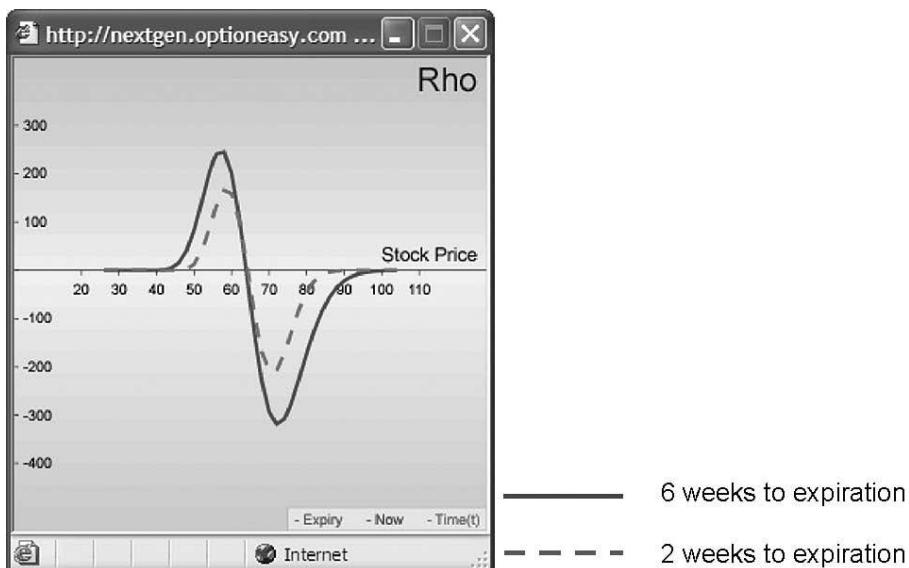
**Chart 9.1.6a** ● FRE butterfly theta profile (narrow).

— 6 weeks to expiration

- - - - - 2 weeks to expiration

**Chart 9.1.6b** ● FRE butterfly theta profile (wide).**Chart 9.1.7a** ● FRE butterfly vega profile (narrow).

**Chart 9.1.7b ● FRE butterfly vega profile (wide).****Chart 9.1.8a ● FRE butterfly rho profile (narrow).**

**Chart 9.1.8b ● FRE butterfly rho profile (wide).**

## Condors

Condors work in a similar way to butterflies except that there is an extra middle leg involved, which therefore widens the spread and flattens out the top portion of the risk profile. The condor involves the following steps (as with butterflies, you can use all calls *or* all puts with the condor—you cannot mix the two):

### Condor with calls

- |               |                                        |
|---------------|----------------------------------------|
| <b>Step 1</b> | Buy 1 lower strike (ITM) call          |
| <b>Step 2</b> | Sell 1 lower middle strike (ITM) call  |
| <b>Step 3</b> | Sell 1 higher middle strike (OTM) call |
| <b>Step 4</b> | Buy 1 higher strike (OTM) call         |

There are two key points here:

1. You trade the same number of contracts for each leg of the condor.
2. The distance between the four adjacent strikes should be equal, with the stock price being somewhere between the two middle strike prices.\*

\* Although this is the strict definition of a condor, it is also fine to create a condor where the distance between the two extreme strikes and their respective neighboring middle strikes is the same.

Or:

### Condor with puts

- |               |                                       |
|---------------|---------------------------------------|
| <b>Step 1</b> | Buy 1 lower strike (OTM) put          |
| <b>Step 2</b> | Sell 1 lower middle strike (OTM) put  |
| <b>Step 3</b> | Sell 1 higher middle strike (ITM) put |
| <b>Step 4</b> | Buy 1 higher strike (ITM) put         |

There are two key points here:

1. You trade the same number of contracts for each leg of the condor.
2. The distance between the four adjacent strikes should be equal, with the stock price being somewhere between the two middle strike prices.\*

\* Although this is the strict definition of a condor, it is also fine to create a condor where the distance between the two extreme strikes and their respective neighboring middle strikes is the same.

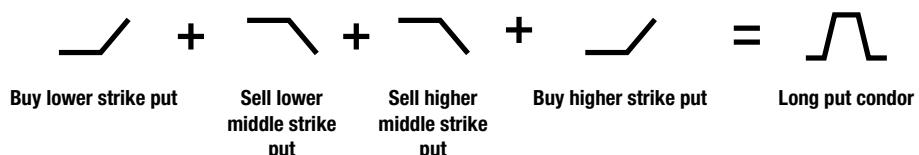
We can create the same condor risk profile shapes by using all calls (call-call-call-call) or all puts (put-put-put-put) for each of the four condor legs.

The condor is a net debit transaction because the ITM and OTM options that you buy are more expensive than the two nearer-the-money (middle) options that you sell to create the strategy spread. Remember, don't be over ambitious with your limit order, but do make sure that you place this trade as a limit order!

#### Long call condor.



#### Long put condor.



The risk profile of a condor follows, regardless of whether you use all calls or all puts.

<b>Long condor</b>	
<b>Maximum risk</b>	Limited to the net debit of the spread (what you pay).
<b>Maximum reward</b>	Limited to the difference between adjacent strike prices less the net debit paid.
<b>Breakeven on the downside</b>	Lowest strike price <b>plus</b> net debit paid.
<b>Breakeven on the upside</b>	Highest strike price <b>less</b> net debit paid.
<b>Maximum risk on net debit</b>	100% risk on <b>net debit</b> .

Again, there are two breakeven scenarios with condors and, as you can see, it is a similar strategy to the butterfly. The condor can yield only a limited profit, but this time it is achievable between the two middle strike prices.

### Example 9.2.1 FRE condor

With FRE, we want to capture the \$60 to \$70 stock price range within our maximum profit profile. Because there is no 80 strike we cannot do the 50-60-70-80 condor. Instead we'll try the 55-60-65-70 condor. Remember, you can use all calls or all puts. Both are highlighted, but the net debit (and therefore risk) is cheaper with puts here, so we'll use puts.

<b>Step 1</b>	Buy 1 July 55 put	(OTM)
<b>Step 2</b>	Sell 1 July 60 put	(OTM)
<b>Step 3</b>	Sell 1 July 65 put*	(OTM)
<b>Step 4</b>	Buy 1 July 70 put	(ITM)

\*Notice that this third leg put's strike price is below the current stock price (\$68.48). Ideally, we want the stock price to be in between the Step 2 and Step 3 strikes. We'll now see if this shortcoming is going to cause us problems in constructing a good trade.

**Chart 9.2.1** ● FRE price chart.

Chart created on TradeStation®, the flagship product of TradeStation Technologies Inc.

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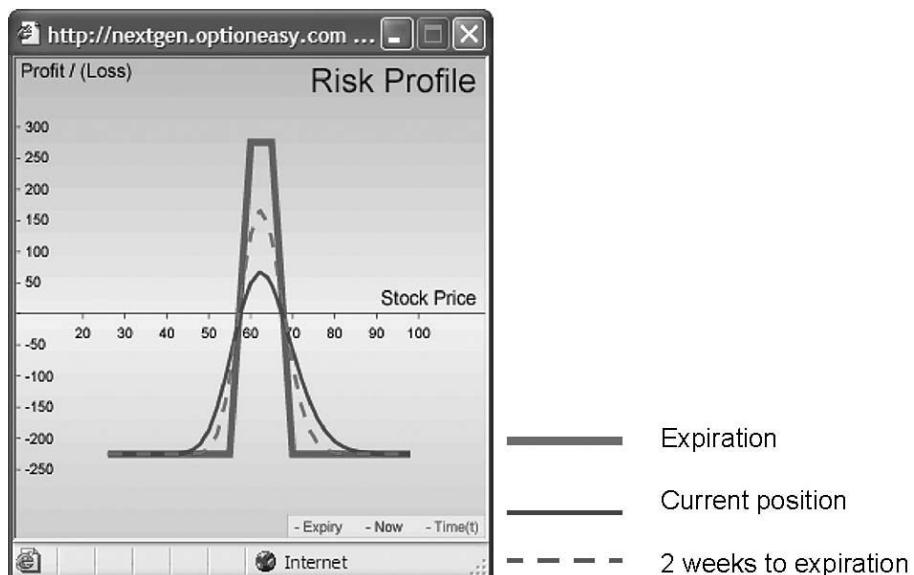
### Long condor with puts (a)

---

Buy 55 strike option (ask)	0.15
Sell 60 strike options (bid)	0.10
Sell 65 strike option (bid)	0.80
Buy 70 strike option (ask)	3.00
<b>Net debit</b>	<b>2.25</b>
<b>Maximum risk</b>	<b>2.25</b>
<b>Maximum reward</b>	<b>2.75</b>
<b>Maximum ROI</b>	<b>122.22%</b>
<b>Breakeven (downside)</b>	<b>57.25</b>
<b>Breakeven (upside)</b>	<b>67.75</b>
<b>Maximum risk on net debit</b>	<b>100%</b>

---

**Chart 9.2.2 ● FRE long put condor risk profile chart.**



Is this a good trade? Not for me! There's not enough return for the amount of risk here. The main problem with it is that the breakevens don't completely envelop our consolidation channel between \$60 to \$70. This means that even if FRE remains within our upper bound of \$70 we can still lose almost our entire stake if it closes at, say, \$69 at the options' expiration.

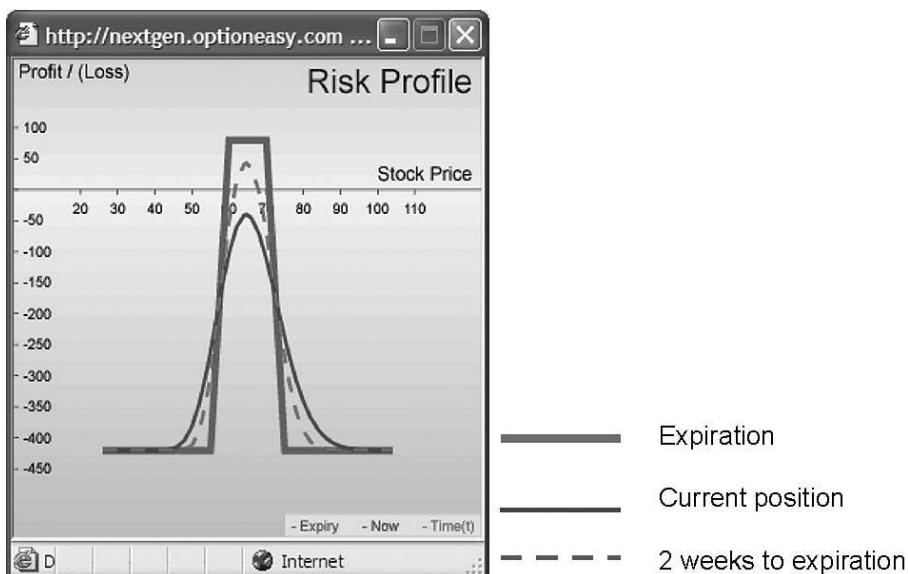
The solution is, in theory to trade an “adjusted” condor with strikes at 55-60-70-75. Notice that the “body” is wider. The only problem with this solution is that although our breakevens would be 59.20 and 70.80, the maximum reward is only 19.05 percent, which is hardly worth the risk.

Looking at both risk profiles, we can see another problem—namely that we have to wait until expiration for any significant maximum upside. This significantly reduces our flexibility in the event of a price breakout beyond the breakeven bands.

	Long “adjusted” condor with puts (b)*	Long “adjusted” condor with calls (c)*
Buy 55 strike option (ask)	0.15	14.00
Sell 60 strike options (bid)	0.10	8.70
Sell 70 strike option (bid)	2.75	1.55
Buy 75 strike option (ask)	6.90	0.45
<b>Net debit</b>	<b>4.20</b>	<b>4.20</b>
<b>Maximum risk</b>	<b>4.20</b>	<b>4.20</b>
<b>Maximum reward</b>	<b>0.80</b>	<b>0.80</b>
<b>Maximum ROI</b>	<b>19.05%</b>	<b>19.05%</b>
<b>Breakeven on (downside)</b>	<b>59.20</b>	<b>59.20</b>
<b>Breakeven on (upside)</b>	<b>70.80</b>	<b>70.80</b>
<b>Maximum risk on net debit</b>	<b>100%</b>	<b>100%</b>

\*The risk profile chart for calls and puts is identical in this instance because the net debits are the same.

**Chart 9.2.3 ● FRE long “adjusted” condor risk profile chart.\***



\* The risk profile chart for calls and puts is identical in this instance because the net debits are the same.

In conclusion, I wouldn't do any of these condors in this particular instance with FRE.

## Comparison Between the Butterfly and the Condor

- With a condor, we have a greater target for our maximum return, spanning the two middle strike prices, whereas the butterfly's maximum return occurs only if the stock lands on the single middle strike price at expiration.
- The condor can incur a greater net debit because, typically, your first leg (with calls) or last leg (with puts) involves buying a deep ITM option, which is expensive.
- Both strategies offer the investor "limited" maximum risk and limited maximum upside. Take note, however, that the maximum risk with these strategies is still 100 percent of what you spend on them.

## Chapter 9 Major Learning Points

In this chapter, we've learned how a butterfly and a condor can be used to trade stocks that are caught in a horizontal price channel.

Ideally, you're looking for rangebound stock patterns with clearly defined lines of support and resistance. The butterfly is an easier trade to place because it involves just three legs and is therefore easier to place the spread centrally around the current stock price. The condor can run into problems because it is typically more expensive than the nearest equivalent butterfly and, as happened in our example here, you may not be able to find the optimum strike prices to construct the trade.

Provided the stock price doesn't move beyond (or too close to) the break-even bounds, you can sell the spread at expiration to capture the optimum return. The problem with these two strategies is that you typically have to wait until expiration to obtain anything near the maximum return. The longer you have to wait, the more chance you give the stock to breach your breakevens.

Remember, with butterflies and condors your outer wing strike prices should be outside your identified levels of support and resistance. In other words, your lowest strike should be below support, and your highest strike should be above resistance. This is so that you can be in profit if the stock remains within those bands of support and resistance.

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## chapter 10

# Trading and Investing Psychology

What kind of investor are you, or are you more of a trader? Are you in this for excitement or for cold-blooded profit? Are you mechanical in your style, or do you shoot from the hip? Do you like to build systems, or are you more motivated by making profits?

These are important questions for you to consider and answer with absolute honesty. You can save yourself a lot of time, money, and energy by not trying to be something you're not. What you say to yourself is far more important than what you say to others, although that, too, is important.

Ultimately your trading success will be defined by your trading plan and your psychology. My trading plan (should you choose to follow it) addresses common psychological challenges such as not taking profits when they're on offer and not riding a trend when a stock is flying. It also addresses the criteria on which I'm prepared to make a trade. For me, it has to objectively look as close to a sure thing as my criteria can get. I'm doing this purely to make money safely.

The trading world is full of anecdotes and well-intentioned one-liners. Consider the “Myths and Realities” and “Tips and Good Habits” listed here.

## Myths and Realities

Myth	Reality
<b><i>"The stock can't go any lower."</i></b>	A stock can go down to zero—if it does so and you're long in the stock, you could face a 100% loss unless you use a stop loss.
<b><i>"The stock can't go any higher."</i></b>	This statement is just as silly as the previous one. Furthermore, it doesn't actually mean anything. In theory, a stock can continue to go up forever, although nothing lasts forever, as we all know. Stocks can continue to appreciate year in year out, during good times and bad. The markets, being somewhat irrational, do go overboard, and many securities do get over or under valued at some point in time. If they didn't, there would never be any opportunities for you to invest or trade in the first place. These excesses, which are caused by greed, fear, and hype in the marketplace, give you the opportunities on a daily basis.
<b><i>"The stock has doubled/halved every year for the last five years, so it'll double/half again this year."</i></b>	Whatever has happened in the past is no guarantee of what will happen in the future. The past might well give you some clues as to how a security might behave, but a stock doubling or halving every year is an over-generalization. Stay away from over-simplified solutions and throwaway comments. Start to look at price movements as opportunities and admit defeat sooner rather than later if the price violates a stop loss or some other predefined parameter you have set.
<b><i>"Shorting stocks is too risky..."</i></b>	Shorting a stock is no more risky than buying a stock, provided that you use sound rules about stop losses and money management. In fact, much of the time stocks will fall far faster than they rise, so by definition, shorting can't be as risky. Short covering happens when those short stakeholders rush to buy back the stock, causing the stock to bounce dramatically. Such instances can trap those continuing to hold short positions. However, the same concept can happen in reverse, so shorting—in this regard—is no more risky than going long. (Don't confuse shorting a stock with selling an option naked. Selling an option naked is risky if you don't know what you're doing, and I don't advocate it to anyone other than advanced traders.) Some people get worked up about shorting stocks in three areas. First is the mechanics of the trade. Shorting involves selling something you don't actually own. For this to be accomplished, you effectively have to borrow the stock from your broker and then sell it. To close the position, you'll have to buy the stock back, hopefully at a lower price (so that you make a profit). The second complaint with shorting is that you'll have to effectively pay the dividend to the actual owner of the stock. So just make sure you're not shorting dividend-paying stocks at the appropriate record date.

Myth	Reality
	<p>As a trader, you won't actually see the mechanics, and, frankly, aside from the dividend payment, what difference does it make anyway? Third, with shorting there is the technical risk of unlimited loss. But this is true only if the stock literally goes ballistic (upward) in a flash. As we've discussed, it's far more likely for a stock to halve in value overnight than double in value overnight. To add in a tier of safety, you might want to avoid shorting immediately prior to major announcements like earnings. For that matter, you might want to avoid any kind of trade (except straddles) immediately prior to a major announcement. Picking your direction for a stock is an entire process in itself, but for me, it's far more risky to see securities as instruments that can only go up. This is a blinkered view that naturally biases a predominantly bullish outlook. It is better to see both upward and downward price movement as opportunities, and then you'll not end up looking for signs that simply aren't there.</p>
	<p>From a psychological point of view, accepting that you can make money from a stock falling changes the entire trading and investment mindset. First, it becomes more of a business decision-making process. Rather than looking for stocks that are going up only, you're now looking for profitable opportunities in either direction. This is a far more healthy approach because you start from a position of neutral bias, not purely bullish.</p>
<b><i>"The cheaper an option premium is, the better, even if it means it's closer to expiration. I can't lose much if it's only a dollar."</i></b>	<p>This is so wrong. I've seen people consistently do this and literally lose 100% of their trade (not to mention their accounts) in a matter of days. When you buy an option, you either give yourself enough time to be right or you trade deep in-the-money (ITM) where hardly any of the premium is made up from time value—don't be cheap. 100% is 100% even if you only paid 1 penny per option. If you really want high leverage and insist on a short-term option, then you'll need to hedge against time decay, and that means buying deep ITM options. These are pricier, but far better value because you won't lose as much time value as the expiration date looms. Remember, a cheap short-term option can end up being extremely expensive.</p>

## Tips and Good Habits

To make money in the markets you have to adopt the “investor” or “trader” mindset. Here are some constructive tips and good habits for you to adopt as part of your routine and persona:

- **Get yourself into a relaxed state of mind before you make any kind of trade or even analysis**—One statistic makes the claim that 80 percent of trading success is down to psychology, and 20 percent down to technical ability. I don't know how they calculated that, but the point is well made. Whatever your technical capabilities or knowledge, your state of mind is absolutely vital to the success of your business, and you must be in a good frame of mind to do yourself justice. We cover this topic more in the “Your Optimal Mindset” section later in this chapter.
- **Create your trading or investment plan and write it down in specific and precise language before you trade**—Don't confuse trading rules with a black-box system. Your trading plan should be a set of rules, which you follow implicitly time and again. Sure, you can build in some flexibility, combinations, and permutations to these rules, but write them down and understand them. Also keep them handy, particularly when you're trading or making an investment decision. A mind map can help you achieve this in a succinct and visual way. A mind map is simply a drawing, such as a series of branches on a central tree, where you use different colors and symbols to depict the rules, as opposed to simply writing them down in a list. We cover this area in more detail in Chapter 11, “Putting It All Together—A Call to Action,” but the rules need to embrace when to enter, when to exit, when to use a specific options strategy, and when to activate your stop losses (which might change according to the strategy you're trading).
- **Only use risk capital that you can stand to lose**—This is another golden rule. Do not use capital that is essential for your food, rent, or mortgage. The stakes are already high enough without you increasing them by using capital that you simply can't afford to lose. Additionally, don't use capital that can cause problems between you and your partner if you proceed. If you start out on your trading career, believe it or not, you're a major success if you're still in the game after two years. If you're making profit at that point, then you're in the major leagues. The trading and investment world is littered with the corpses of former traders who either burned themselves or their capital out. Start with reasonable expectations and keep your risk capital low initially. As you make consistent progress, you'll be able to steadily increase your risk capital with comfort. A rule of thumb is to never risk more than 5 percent of your trading capital on any one trade. For smaller accounts under \$20,000, 10 percent is fine.
- **Don't overtrade**—You should have only as many trades as you can handle without going nuts. If you can handle 20 trades at once and be relaxed, confident, and in control, then that's fine. We're all different and we all

have different styles of trading. Discover for yourself what suits you, both in terms of portfolio and your preferred time frame. For longer-term investors, a larger portfolio might be more manageable. For shorter-term day traders, one or two live trades should be enough.

- **Stick to two to three strategies you like and that work for you**—The best and most successful traders in the world use only a couple of trading strategies. There are many things to consider when making an investment decision, so why complicate the matter? There are only three eventualities—the price will go up, down, or sideways. The only other parameter to consider is timescale—that is, how long is it going to take to go up or down, or how long will it remain static or range-bound? This is enough to think about without having to consider a whole myriad of strategies as well. Different people like different strategies, and that's why there's a selection included in this book. When you understand what you feel comfortable with and you're successful, stick with it and don't try to be too clever.
- **Do not fall in love with or hate a stock, and don't get wedded to a position**—This is one of the big rules. A stock does not make you money. Your decision makes your position profitable, and you bank only that money when you exit that profitable position.

Similarly, a stock doesn't lose you money, so there's no point in trying to “even the score” on a stock where you lost money in the past. At the same time, just because you lost with a stock in the past doesn't mean you can't make money with it in the future, should the appropriate triggers be signaled according to your rules. And, of course, just because you made money with a stock in the past doesn't guarantee you success next time. Although if you get to know a stock's personality, your chances of success can be enhanced, provided you're willing to see both directions, up and down, as profitable opportunities.

Stocks, commodities, and all securities in general are just instruments that you can buy and sell. Some people trade only one stock, index, future, or commodity. This is fine because it's not the same as being wedded to a position; they're simply using that security as their preferred instrument to trade both up and down.

- **With options, make sure you understand your risk profile before executing any trade**—However simple the options strategy is, ensure that you fully understand your risk, reward, and breakeven scenarios for the trade you're considering before you make the trade. These figures and their respective

charts are your eyes on the trade. Trade with your eyes open and use the tools that help you achieve this.

- **Keep a trade journal**—Make it your habit to write down your stock picks (and reasons why) every day. You want to write down the stock symbol, the direction in which you surmise it's heading, the reason for this (that is, the technical and fundamental analysis that backs your judgment), and the appropriate time frame during which you anticipate the move to occur.

When you make a trade, record the time of the trade, the strategy, and any other relevant details you think might affect your decision-making performance. Some traders take a note of the weather, what they've consumed, and all manner of other details, which they subsequently use to analyze their record and make adjustments to their trading plan.

- **Visit an exchange**—Spend a day and see firsthand what happens at an exchange. If you live in a major financial center, there's no excuse. It helps you see what actually has to occur for your order to be processed. An appreciation of the market mechanics is all I'm suggesting here, not an in-depth thesis. In the open-outcry system, events are happening so fast you learn to appreciate that the floor-traders (locals) aren't bothered by your individual trade. Some day traders become paranoid that (somehow) the floor-traders are part of a conspiracy to hunt down their stops. Two solutions exist here. First, stop being paranoid; it's not the right frame of mind in which to trade anyway. Second, take care with where you set your stops...(read on).
- **Set stops (at least in your head)**—Placement of stops is an art, but it is also personal to the individual. Avoid the obvious place where everyone else is and place it slightly beyond that area, hopefully just out of reach of the savvy locals who will invariably gravitate to a congested area of stop orders. That is, avoid the gambling mentality where discipline is thrown out of the window. You can imagine the scenario where a husband comes back home from the casino to his long-suffering wife. He's promised her that if he gambles, he'll put only a total of \$100 at stake. Yet he comes back home with his tail between his legs, sheepishly admitting that he's actually blown \$1,000, only to then triumphantly announce, "But don't worry, dear, I'll win it all back tomorrow night." This is the stuff of nightmares. Do not become a gambler; be disciplined in all aspects of your trading, from analysis, to entry, to management, and then exit.
- **Where possible, don't fight the market**—If you're making a directional trade, then make sure you're not at odds with the market. It's more

powerful than any one stock. You should always bear in mind what's going on in the wider marketplace before entering your trade.

- **Loss of opportunity is preferable to loss of capital**—Don't kick yourself over lost opportunities (the one that got away). All you lost was an opportunity; nothing happened to your bank balance. You neither spent money, lost money, nor made money, so there's no point in crying about it. If you spotted a great opportunity and didn't act on it, ask yourself why and at least give yourself credit for spotting it in the first place. The market provides opportunities on a daily basis. You'll find another one, and next time you'll remember that, provided it's consistent with your rules, you'll act on it with more certainty and with the benefit of past experience.
- **Avoid tips from friends, family, or friends of friends unless you play them as a straddle, strangle, or a synthetic call**—Virtually all of us have taken a stock tip, haven't we? And we've also been burned by them, haven't we? Well, accepting the fact that we're all human and that we can be tempted to listen to a red-hot tip again, let's discuss the way to play them.

Only play a tip as a straddle, strangle, or synthetic call (where you buy the stock and a put option). So often, these red-hot pieces of information end up going in the opposite direction, and fast too. By playing the synthetic call, you're at least buying some insurance when you buy the stock (see the section "The Synthetic Call (Protective Put)" in Chapter 5, "Two Popular Strategies and How to Improve Them"). By playing the straddle or strangle, you make the assessment that the tipped stock will move wildly in one direction—you're just not sure which way (see the "Straddles" and "Strangles" sections in Chapter 8, "Two Basic Volatility Strategies").

- **Avoid penny stocks and illiquid securities**—Don't be fooled into thinking a cheap stock is necessarily good value. Also make sure that whatever you buy you can sell, too. Illiquidity generally leads to volatility in the stock price and a wide jump between the bid and the ask. Avoid these kinds of securities, and stick to the stocks with at least 500,000 Average Daily Volume (ADV).
- **Avoid forecasting**—Even analysts, with their tremendous back-office and high-tech support, constantly get their forecasts on stock direction wrong. Notwithstanding a cynical viewpoint that analysts' main *raison d'être* is to attract corporate customers as opposed to correctly forecasting price movements, it's important that you don't constantly make predictions about where the market is heading.

Now, you might ask the question, “But isn’t trading and investing predicated on making price forecasts in the first place?” Well, that’s a good point, but your emphasis shouldn’t be on forecasting so much as reacting quickly to the information supplied by the market, whether via technical or fundamental analysis. It might be semantics, but by getting entrenched into constantly making predictions for your buddies, you run the risk of altering your psychology and start to become wedded to your own predictions even if they turn out to be wrong. What you want to achieve is a totally pragmatic approach to trading, treating it exclusively as a business enterprise and using high-probability trading techniques.

- **Take full responsibility for your actions**—Whatever the circumstances of a trade, always assume responsibility for it come rain or shine. Ultimately, it’s your money, so you must be responsible for pressing the button, even if it is your broker who’s advising you. By taking responsibility, you give yourself control to either continue making good trades or correct any bad decisions or strategies. This rule applies to life in general and not just trading. Those who continually blame other people or circumstances (we’ve all met this sort) are never able to resolve their problems or issues mainly because by doing that they absolve themselves from any ability to rectify their situation in the first place.

Taking responsibility is not the same as self-flagellating. You want to avoid the sort of self-defeating phrases such as, “If only I’d done such and such...I’m such an idiot.” Far healthier is to look back on your trade and ask yourself honestly whether you followed your trading plan and if not, how you will rectify that problem the next time around. Could you make your plan more compelling, for instance?

- **Avoid message boards like the plague**—The vast majority of message boards are dangerous places where innocent newcomers get manipulated by “pumpers” and “dumpers” who have nothing better to do than spend all their time either hyping or slamming a stock. Emotions run high within message boards, and we know that wildly fluctuating emotions have no place in a serious investing or trading mindset. There is so much misinformation within the chat room forums that you need to avoid them like the plague. At best, they are frequented by well-meaning but highly emotional traders/investors; at worst they are phonies’ playgrounds. Either way, you’re best advised to stay away. Sure, there might be the odd decent one, but from what I’ve seen they can be extremely hazardous for the uninitiated and uninformed.

- **Do your homework on so-called gurus and teachers**—The problem isn’t that there’s not enough education in the field of trading.

The problem is that there’s too much education but much of it is awful. It certainly is possible to master the knowledge and practical application to become a successful investor/trader. If you’re new to this, then it’s not going to happen overnight, and you will need to make this your hobby. Part of your journey might be discovering different methods of wildly varying merit.

Ultimately, you want to get a reference of some sort about any guru or teacher from which you want to learn. Find ex-delegates or those who’ve read their material and ask them whether they learned anything useful, whether they implemented the lessons, and whether those teachings worked in practice (that is to say, results).

- **Black-box systems don’t work forever**—For the sake of clarity, what we’re talking about here is the type of system where you, the user, are required to do nothing whatsoever, but simply take the automated signals as your decision-making guide.

I’m not into black-box systems myself and I’ve tried dozens of them, all with great enthusiasm. They tend to work for a limited period of time, and then they stop. The problem is that they’re static in design and rigid in their construction, which is exactly what prevents them from automatically adapting to constantly changing market conditions.

Remember, you should treat investing and trading as a business. Typically, this requires you to put in some effort. So steer clear of anything that claims you can make wild successes doing nothing. I’m not suggesting you have to become a rocket scientist to get the hang of this—far from it. But you will have to put in the effort yourself, so be prepared. You can certainly do it, and the rewards will be all down to you.

- **Beware of advertorials with simulated results**—There are many adverts and publications that claim unprecedented levels of successful results with headings such as “The Automatic Way to Unbeatable Profits.” Invariably there is a catch. The most outrageous ones I’ve seen so far are that the so-called unbeatable systems haven’t even been tried live but were simulated and then curve fitted with an optimization function. A system that bases itself with the advantage of hindsight has no value whatsoever because as traders, we don’t have that advantage. Not only that, but look for the caveats in the small print that admit that the “results” of the system are

based only on mid-prices and take no account of the bid-ask spreads. That is no way to test a plausible system.

Paper trading is a valid research exercise for any system you might choose to adopt. However, you must paper trade as if you are actually trading. This means that you buy at the ask and sell at the bid, you add the correct amount of commissions, and you are completely honest with yourself. Paper trading is not the same as trading with real money at stake, so honesty with yourself becomes a vital ingredient for its usefulness and validity to you.

Work is one of the keys to your success, and I'd be more inclined to investigate a methodology that advised me about the work first.

- **Get involved in physical activity**—Trading and investing typically involves being at a computer much of the time. It's imperative that you get out and about and get the blood flowing in a healthy way. I'm not suggesting running marathons, but you should seek some fresh air and some form of physical exercise, even if it's walking the dog. If nothing else, it'll free the mind up. I know some traders who go fly-fishing. I tried it too, just to see what all the fuss was about, and discovered the secret. It was that when you're doing an activity such as fly-fishing, it's so absorbing and takes so much concentration that it's impossible to think about anything else. And that's extremely healthy for your mentality and emotional state. You do not want to think about trading (and the one that got away) all the time. Find an activity that you can escape to so that you can get away from work and strike some balance.

Energy is a vital ingredient in this game, so you should also consider what you eat. I'm not going to be prescriptive here, but moderation is a good thing. Typically I avoid caffeine and too much sugar. Remember, what tastes fantastic isn't always good for you.

## Your Optimal Mindset

Have you ever made a truly great decision when you were feeling bad, depressed, morose, or really uptight and tense? Well, guess how many people make trading and investment decisions when they're crippled with stress. Lots. So what is the optimal mindset and how can you get there? Just read on...

Without a sound, uncluttered frame of mind, trading won't be as smooth as it needs to be to make you money. It's not just a question of rule setting, although rule setting is an essential part of the process. The rules need to be

simple and compelling for a start, but even then you need to have the discipline and confidence to follow them.

## Be Relaxed, Confident, and in Control

Your optimal mindset is one where you feel *relaxed, confident, and in control*. This applies to trading or for that matter any other activity where you're pursuing excellence. If your trading plan is robust, then you're more likely to be in the right frame of mind as you trade.

### Be Relaxed

When you think about it, this makes perfect sense. When you feel relaxed, your body and mind can operate at their absolute optimum performance levels because they are unrestricted by the friction caused by tension, stress, and bad, cluttered thought patterns. Being relaxed means you can physically and mentally

operate smoothly. Don't confuse relaxation with lying on the couch, sleeping, or watching TV. Relaxation means to get yourself into a state where your mind is alert, free, and uncluttered and where your muscles are soft and completely free of tension. If you press down on one of your shoulders and jump up in pain, this is a

sign that you're not relaxed enough. If you press down and the muscles are soft and you experience no pain, then you are nearer the relaxed state you need to be in. With office-type occupations, tension tends to make itself obvious around your neck and shoulders area. You need to be free of that.

**Relaxation means to get yourself into a state where your mind is alert, free, and uncluttered.**

### Be Confident

When you have a credible trading plan and have learned techniques that will enable you to trade and invest with greater probabilities of success, then you

should start to feel more confident in your ability to make consistent and sustained profits over the short, medium, and long term. Stack the odds in your favor before you actually press the buy or sell button. Make sure you're comfortable with whatever technique

**Stack the odds in your favor before you actually press the buy or sell button.**

you're using, having successfully paper traded it first. This will enable you to feel the calm confidence you need to have longevity in this business.

### Be Controlled

If you're relaxed and you're confident, then you have a better chance of being in control too. And if you're in control of your actions and emotions, then the virtuous cycle will ensue, and you'll become even more relaxed and confident as well. All the time, we're talking about a calm and smooth approach to trading and investing. You can be calm and yet still have the speed of thought, hunger, and confidence to make important decisions quickly, efficiently, and effectively.

## Building the Resource State of Relaxation, Confidence, and Control

Ultimately whatever works for you is the answer, but here are a few pointers. Jack Schwager's *Trading Wizards* (Schwager, 1992) refers to traders who regularly use techniques such as Neuro Linguistic Programming (NLP) and hypnosis to achieve enhanced trading performance. I can also vouch for their effectiveness in all sorts of scenarios.

### Breathing

The first step in achieving a relaxed state is to control your breathing. Take a long, slow, deep breath, filling all your stomach, and then allow yourself to breathe out as slowly as you possibly can. Do this for a few breaths, and you'll begin to feel different and more relaxed. All too often, we don't pay enough attention to the way in which we breathe, but it's a good habit to get into because in many cases, we need to breathe in a healthier manner. Think about it this way. How long can you go without food? How long can you go without water? How long can you go without oxygen? Do you get the picture? We need oxygen to stay alive, and that gives us a clue to the fact that we perform our tasks better when we employ our lungs to something nearer their capacity. Because deep, steady breathing encourages a relaxed state and we perform physical and mental tasks better when we're relaxed, it also stands to reason that when you're breathing deeply and steadily you'll perform better in this state.

### Re-creating the Resourceful State

Step two is where you generate feelings of great confidence for yourself. Remember, the most important thing is to have a robust trading plan. That is your trump card. All these other psychological techniques are simply bonuses. Without a properly formed plan, they won't be helpful.

Have you ever felt confident before? Even if your initial answer might be no, think again. We've all felt confident about *something* before. We're not talking about saving the world or anything like that. Was there a time when you felt confident about a meal you cooked, or a paper you wrote, a meeting you had, a sporting achievement, or a piece of art you created? Some people even feel confident about having no confidence at all.

When focusing on a time that you felt confident, recall in detail what you were seeing at the time, what you were hearing, and how you were feeling at that time. Build the images you saw in your mind and notice the colors and the focus of the pictures, how far those images are in your mind, the size of the images, whether they're in 2D or 3D, and whether they're still shots or motion pictures. Allow yourself to become fully and comfortably aware of the sounds and what you heard, paying attention to the richness of sound quality, the source of the noises, the depth, pitch, and tonality of what you were hearing. And notice the way you feel about it all, as you literally re-experience the feelings of confidence. Now you can begin to amplify those feelings by playing with the images, making them bigger, brighter, more colorful, more dynamic, and moving pictures. You can increase the richness of the sounds you were hearing, even adding a soundtrack to the pictures. We've all listened to wonderfully inspirational music that touches us, makes our spine tingle, and makes us feel invigorated or just calm and controlled. That's the kind of music that will assist your imagination and ultimately, the task in hand, like your trading. See yourself in the pictures within your imagination and bring the image of yourself in that confident state nearer and nearer until you can step into the image life size and be in it, applying it to your trading. Notice how you feel with the addition of the soundtrack—it should help to magnify the effects of your positive feelings. You can apply the same soundtrack to your trading both now and in the future. Does it help you feel more confident in this scenario? You can play the soundtrack out loud if you like and not just in your head. The effects should be tangible.<sup>1</sup>

### Anchoring the Resourceful State

Step three involves you creating a stimulus-response association between your Resource State and a subtle physical action...

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<sup>1</sup> Remember that much of your confidence in trading should be predicated on the basis that you have a trading plan that you've tested and seen work, provided you follow the rules. The sequence just described is detailed so that you can access the feelings of confidence more readily in the knowledge that you have a sound trading plan already.

At the peak of your confidence, your breathing is rhythmic and steady, and you feel calm, relaxed, and alert. As these good feelings are at their most intense, they trigger a stimulus such as clicking your fingers in a distinct way, or pinching the back of your hand. The idea is that this has the effect of linking that stimulus with the resourceful state feelings you just created (and amplified) so that in the future you'll be able to call upon the Resourceful State at will.

Your “soundtrack music” should be uplifting and can even be triumphant if you like, but make sure that it doesn’t make you overexcited. The music itself can also become a powerful anchor for generating the resourceful state of mind. It works even better when you combine the music with the physical anchor (say, of clicking your fingers) you just created. I know people who always listen to a section of their “anchor music” before embarking on any endeavor of real significance, whether it’s an important meeting, a phone call, trading, or even going on a date. We want to feel confident yet focused and controlled at the same time. Sportsmen and sportswomen often equate this phenomenon as being “in the zone.” They make references to feeling “10 feet tall” when they go onto the field of play with an overwhelming but calm sense of certainty about what it is they’re about to achieve. In Eastern cultures and some martial arts, the feeling is likened to being totally centered, where you enhance your awareness of your own center of gravity, which is about two inches below your naval. You should feel “in the zone.” You see yourself completely controlling your thoughts, emotions, and actions. It’s almost cold-blooded, but it’s effective and ensures that you can maintain an aloof detachment from the mayhem of the markets yet be able to react to them profitably, mechanically, and unemotionally when you’re required to take decisive actions. By controlling your breathing, you’ll maintain control of your thoughts and actions, which in turn will help you to feel relaxed and confident, thus perpetuating this virtuous cycle.

For step four, you need to test the anchor and ensure that it works. If by listening to the music and triggering the physical anchor (clicking your fingers) you begin to feel good sensations such as your breathing automatically slowing down, your spine tingling, a markedly increased sense of well-being and confidence, and so on, then it’s working. If you feel no effects when you trigger the physical anchor, go through steps one through three again and amplify the sounds, pictures, and feelings, and if you haven’t already done so, play your uplifting soundtrack out loud on your stereo while you create the anchor again.

For sure, your emotional state is important to your money-making aspirations. But your trading plan is even more important, so make sure your trading plan is a winner in the first place.

## Money Management and Rule Making

Much has been written about money management in the field of trading and investment. Ultimately it boils down to trading in an emotional vacuum and sticking by your predetermined rules. Remember that trading and investing are two separate and distinct activities requiring an overlapping of but not identical skills. In terms of mindset, there is definitely a full overlap. Having the right mindset helps you to stick to your rules and apply your stops at the appropriate and preordained times. It's common sense not to bet the farm on any single investment decision, and it's common sense to spread your risk around in a manageable way where you can track your dealings and act fast if necessary.

It's also common sense to take your profits according to your rules and ensure that they allow you to do so. Your rules should embrace your entry, management, and exit decisions, and they need to be good enough to keep. One of the most common statements in the trading world is, "I would have made a profit, but I keep breaking my rules." Does this sound familiar? This is the most common statement I hear. The question therefore is this: Are your rules worth keeping in the first place? Because if they are, then you need to find a way of keeping them; and if they're not, then you need to find some better ones. Always look for a common sense approach and you shouldn't go too far wrong. If in doubt, ask someone you respect.

Your rules should embrace your entry, management, and exit decisions, and they need to be good enough to keep.

### A Money Management Anecdote

Many years ago, I wanted to trade a stock that I'd been tracking for some time. The stock was trading at more than \$32 but had a critical support level at \$20. At the time, I didn't consider shorting it, but I wanted to track it until it hit my predetermined target price. I was already fully invested elsewhere, so I phoned my bank manager and explained the situation, asking him for a considerable loan if the correct circumstances arose. "If the stock hits \$20, then I'm buying. If it breaks below \$19.00, then I'll get out, pay back the loan, and take a small loss. In the meantime, I'll keep you informed as to its progress—it might never happen at all." Over the next four weeks, the stock kept falling, and each week I'd contact my bank manager and tell him triumphantly that the stock was falling and to make sure the funds were ready when I needed them. Finally, after about a month, I was ready. The stock hit the target zone, and I contacted the bank and bought it. I'd had plenty of time to think about this and the psychological impact that surrounded this rather aggressive trade.

The rule was set with certainty. The money wasn't even mine, but if I violated my stop loss rule, I'd have been in some trouble. Now I'm not suggesting that anyone try what I did, but just consider the psychology of it. There was no way that I was going to even consider violating my stop loss rule here. Because the money wasn't technically mine, I took even more care than I would if it had been. That's an unusual approach to take, but I made a promise and I was sticking to it, even in the most commercial of situations. I simply don't see a difference between promises made in business and those made personally. If I make a promise, I keep it and don't falsify details in the meantime. So, for me, this was a powerful motivating factor to make me keep my stop loss rule in this instance.

What I learned was that for me, it was a good idea to treat every investment as if it were that loan from the bank or someone who was depending on me. That way, I'd always stick to my stop loss and other money management rules. As it happened, the stock doubled in less than six months, and I sold the whole lot at around \$38.50. Everyone was happy, especially me. So now I always make that promise to obey my stop loss, and it works every time.

The fear of loss in such a public manner is enough to motivate me to plan my trade around a predetermined profit and stop loss target. If something seems to be going awry in the price action and I'm still in a profitable position, I'll take my profits early and move on. There's nothing so frustrating in watching a profitable position turn against you into a loss-making position. The fear of loss can be crippling to many traders who experience "freeze," which is a bit like the "yips" that some golfers suffer. By publicly stating what you're going to do, not only can you overcome the fear factor, but you can actually use it beneficially to stick to your trading plan. Having a trading buddy can help in this department; it just depends on what works for you.

## Chapter 10 Major Learning Points

In this chapter, we learned the crucial role that psychology and good thinking play in trading and investing lifestyles. Many of the best known and most successful traders apply various mind techniques to enhance their working performance, just like professional sportsmen and women do.

Good thinking embraces your trading plan, and your trading plan will be a by-product of good thinking. This will filter into your trading performance and ultimately into your lifestyle as well.

With all that said, your trading success will also hinge on your trading plan and your ability to stick to it and manage your risk. This is where a sound technique and an optimal mindset can dovetail to make you a real trader.



## chapter 11

# Putting It All Together— A Call to Action

**Keep it simple and  
stick to your plan.**

So now that you're armed with several options strategies, all you need is a trading plan. You should trade only when the odds are stacked in your favor. Professional card players operate in this way. By counting the cards (a proven technique not encouraged by the casinos), the pros can identify periods of high and low probability for placing higher or lower bets and adjust their bet size accordingly.

Professional traders stick to a plan that proves itself over the medium term, and they don't just trade for the sake of it or because of boredom and something to do. My own trading systems are discretionary in nature, but they are governed by rules that must be adhered to for the best results.

Over the years, my trading plan has become progressively simpler, though it's fair to say that its robustness comes as a result of a lot of experience. Also, by using my OVI indicator (see Chapter 12, "Trading with the OVI"), I significantly increase the odds of success, while keeping things simple. Simplicity gives clarity, and clarity gives certainty of how and when to take action.

Given the importance of my OVI indicator, it would be a good idea at this point to read Chapter 12 and then return here for the trading plans.

## Step 1—Choose Your Chart Pattern and Strategy

In Chapter 4, “The Basics of Technical Analysis,” we discuss the most popular chart patterns. Let’s focus on the following chart patterns:

- **Consolidations**—For trading with the trend. These patterns include the flag family, and we’re looking for the breakout to occur in the direction of the dominant trend.
- **Support and resistance**—For breakouts. For these, I keep it simple by using previous highs and lows as my breakout zones.
- **Reversals**—Focus on Doji bars that form a 20-day high or low.

For each of these patterns, I use the appropriate stock or options strategy. For each strategy, I require a breakout to occur before the trade is executed, except for straddles and strangles. As such, all other orders are placed conditional on the breakout occurring, except straddles and strangles.

Chart pattern	Strategy
Consolidation/flag breakouts (use the OVI with this strategy)	Bullish: Buy stock; deep in-the-money (ITM) call; covered call; collar; naked put; bull put; bull call  Bearish: Short stock; deep ITM put; bear call; bear put  Neutral: Straddle; strangle
Channel breakout through support or resistance (use the OVI with this strategy)	Bullish: Buy stock; deep ITM call; covered call; collar; naked put; bull put; bull call  Bearish: Short stock; deep ITM put; bear call; bear put
Doji reversal	Bullish: Buy stock; deep ITM call  Bearish: Short stock; deep ITM put

In practice, I now trade the following strategies 90 percent of the time:

- Long and short stock (with margin)
- Deep ITM calls and puts
- Straddles and strangles

Occasionally, I find a reason to trade a spread, but it’s rare because I like to keep things simple and not clutter my winning trading psychology.

## Step 2—Set Your Plan

For each pattern, I have a specific trading plan for which the entry/exit criteria is the same regardless of whether I'm trading it with the stock, options, or even spread-betting.

### Flags, Consolidations, and Channel Breakouts

With continuation patterns, I always use the OVI indicator as part of my plan. Make sure you read Chapter 12 first.

Essentially the trading plan for flags/consolidations and channel breakouts is the same. The only difference is that channel breakouts aren't necessarily preceded by a clear trend.

For bullish scenarios, the OVI must be positive and preferably for several uninterrupted days as the bullish consolidation is forming.

For bearish scenarios, the OVI must be negative and preferably for several uninterrupted days as the bearish consolidation is forming.

Appropriate OVI stocks can be found on [www.theinsideredge.com](http://www.theinsideredge.com), where you can monitor 12 blue chip stocks free, using this technique.

Given this as the template, here is the basic trading plan for such scenarios:

1. Find the trade according to the preferred criteria (consolidations, preferably with a corroborating OVI as described previously—bullish scenarios with positive OVI, bearish scenarios with negative OVI). Focus on tidy patterns with clear areas of support and resistance.

Run through the dozen stocks in the OVI Express12 on the [www.theinsideredge.com](http://www.theinsideredge.com) website free, or if you want a greater selection of stocks you can subscribe to the OVI Traders Club at [www.ovitradersclub.com](http://www.ovitradersclub.com). Both sites have comprehensive video tutorials and example trades for this method.

2. Check the news to ensure an earnings announcement is *not* about to occur with the stock you're looking to trade.

You can do this on my websites by viewing and clicking on the earnings date itself or the earnings bell icon within the OVI Express results table.

3. Decide your strategy (stocks or options).

You can learn more about how to trade simple deep ITM option strategies at [www.theinsideredge.com](http://www.theinsideredge.com) or [www.ovitradersclub.com](http://www.ovitradersclub.com).

4. Place the trade.
5. Manage the trade.

## Placing and Managing the Trade

(See Chapter 12 for full details and examples.)

1. Enter your buy order just above resistance (for bullish scenarios) or your short just below support (for bearish scenarios). Use stop-limit or conditional orders to open your trades to avoid gapping.<sup>1</sup> We typically do not want to trade into a gap because that means a loss of control from the preferred entry level. The preferred entry level is just above resistance (long, bullish) or just below support (short, bearish).
2. Set the initial stop loss at the same time as your entry (see Chapter 12).
3. Close half of your stake at a predefined profit target, which I refer to as P1 (see Chapter 12). This means you exit half your stake at the P1 level and leave the remaining half on.
4. Adjust the initial stop to near your initial entry point for the remaining half of the stake. This will now become a trailing stop if the stock continues to trend. For the trailing stop, use an adjustable diagonal trendline.\*
5. Monitor and adjust the trailing stop as the price trends until you're stopped out for the second profit (P2).

You can use some discretion with your trendline to manage your P2 profit. This includes adjusting the trendline angle and even pausing it to a horizontal angle where the stock is going sideways or forming new flags and channels.

Go to [www.theinsideredge.com](http://www.theinsideredge.com) for free video tutorials on this trading plan.

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<sup>1</sup> Spreadbetting firms (mainly in the UK) do not have stop-limit or conditional order capability at the time of writing. In which case, if you're using a spread-betting account you may have to place your stop or limit opening order during trading hours. Those with a traditional brokerage account can use stop-limit or conditional orders at any time.

\* For uptrends, the trendline rises diagonally just under the lows of the price bars. For downtrends, the trendline falls diagonally just above the highs of the price bars. When the prices retrace sufficiently, the trendline is hit and the trailing stop is activated, meaning the second half of our trade is exited.

## Outcomes

- No *breakout* means no losses because the conditional order is executed only into a trade if the breakout occurs.
- The price breaks out, triggering the entry, but then reverses before hitting the P1 target. In this case, we're stopped out at the initial stop loss.
- The price breaks out, triggering the entry, reaches P1 for the first profit on half our stake, and then reverses. In this scenario, we make the P1 for half the stake. Depending on how vicious the reversal is, the P2 can turn out to be the same amount as P1, less than P1, or even just a breakeven if the reversal retraces all the way back to the initial entry point.
- The price breaks out, triggering the entry, reaches P1 for the first profit on half the stake, and then continues the direction of the dominant trend. In this scenario, the P2 will be greater than the P1, potentially significantly so. There might be the opportunity to pyramid into a new trade if the stock keeps making flag and channel breakouts as it trends. The point where a price keeps trending is where we make the windfall profits seemingly effortlessly.

For a full explanation of how to trade with the OVI, please refer to Chapter 12.

## Reversals

For reversals, we do not use the OVI. The criteria for a possible reversal trade are as follows:

- S&P 500 stocks only
- Doji bar forming
- 20-day extreme in price

We look only at S&P500 stocks for reversals because we're looking for stocks where Dojis are relatively infrequent—this is the case with the larger, more actively traded stocks. They are more meaningful when they show up, and more likely to make a reversal as desired. The 20-day extreme in price is core to the strategy, too. I have filtering software to find stocks fulfilling these criteria in my OVI Traders Club website, though again, the reversal strategy does not use the OVI.

The Doji bars we're looking for will form a 20-day high (which will potentially reverse downwards) or a 20-day low (which will potentially reverse upward).

The basic trading plan for reversals is as follows:

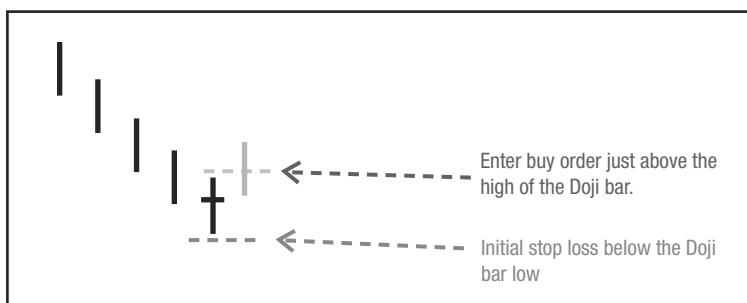
- Find the trade according to the reversal criteria (Doji bar forming a 20-day extreme in price on an S&P500 stock).
- Be aware of any news announcements such as earnings.
- Place the trade.
- Manage the trade.

## Placing and Managing the Reversal Trade

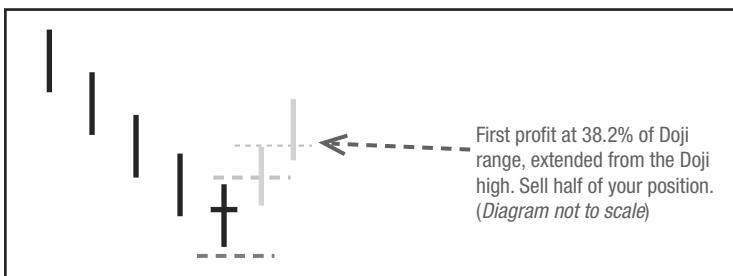
### *Doji Low Bar Reversal*

1. Enter your trade to buy just above the high of the Doji bar. If the following bar breaks this high, the trade will be activated.
2. Set the initial stop loss just below the bottom of the Doji bar.

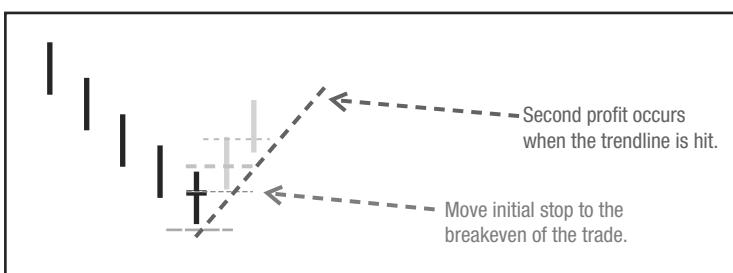
**Diagram 11.2.1 ● Doji low reversal setup.**



3. Close half your stake at predefined profit target P1. This is typically at a 38.2 percent extension (or preferably less) of the Doji bar itself. You measure the Doji bar length, multiply it by 0.382 (or preferably less), and then add this amount to the Doji high to determine the P1 target.

**Diagram 11.2.2 ● Doji low reversal P1.**

4. Move the initial stop to near your initial entry point or the breakeven level for the entire trade. If the stock continues to move upward, follow it with an upward diagonal trendline as the trailing stop.\*

**Diagram 11.2.3 ● Doji low reversal P2.**

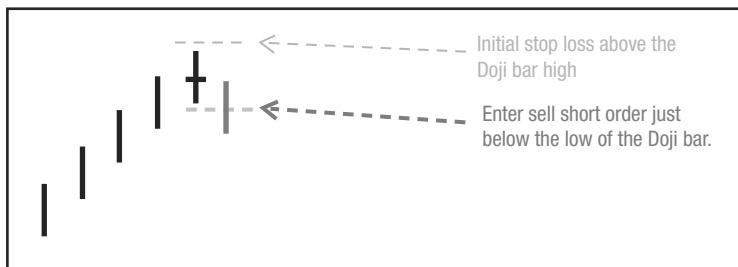
5. Monitor and adjust the trailing stop as the price trends until you're stopped out for the second profit (P2).

#### *Doji High Bar Reversal*

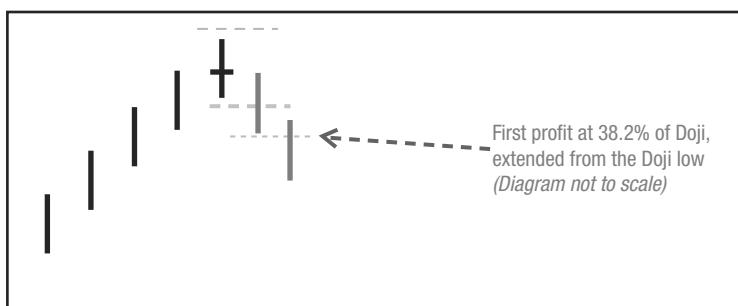
1. Enter your trade to short just below the low of the Doji bar. If the following bar breaks this low, the trade will be activated.
2. Set the initial stop loss just above the top of the Doji bar.

---

\* For uptrends, the trendline rises diagonally just under the lows of the price bars. When the prices retrace sufficiently, the trendline is hit and the trailing stop is activated, meaning the second half of our trade is exited.

**Diagram 11.2.4 ● Doji high reversal setup.**

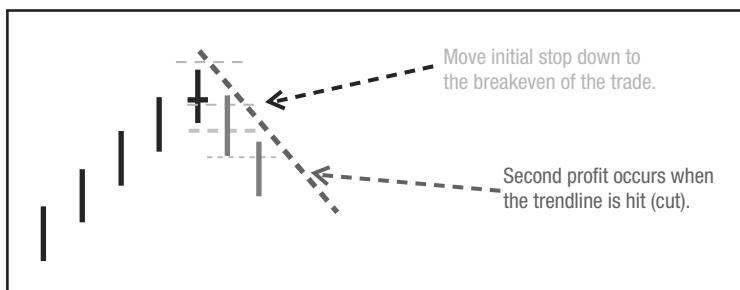
3. Close half your stake at predefined profit target P1. This is typically at a 38.2 percent extension (or preferably less) of the Doji bar itself. For this, you measure the Doji bar length, multiply it by 0.382 (or preferably less), and then subtract this amount from the Doji low to determine the P1 target.

**Diagram 11.2.5 ● Doji high reversal P1.**

4. Move the initial stop to near your initial entry point or the breakeven level for the entire trade. If the stock continues to move downward, simply follow it with a downward diagonal trendline as the trailing stop.\*

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\* For uptrends, the trendline rises diagonally just under the lows of the price bars. When the prices retrace sufficiently, the trendline is hit and the trailing stop is activated, meaning the second half of the trade is exited.

**Diagram 11.2.6 ● Doji high reversal P2.**

5. Monitor and adjust the trailing stop as the price trends until you're stopped out for the second profit (P2).

### Step 3—Execute the Plan

People always ask me why they should close half the position at the P1 profit target. By doing so, you reward yourself for a good trade so far. If the stock continues in your favor, you'll continue to profit from the second half of your trade. In the case of breakouts, the second half of your position might still be active when a new flag forms. In such a case, you can safely add to your existing position as if it were a new trade and take the appropriate P1 from that as well. If a stock goes on a serious trend, you'll participate in it strongly and safely as it trends in your favor.

If you didn't take the P1, then you could end up having a trade that solidly broke out but then retraced, leaving you with zero profit. By taking a partial profit at P1, at least you get rewarded for getting there, while still being able to participate in a potential windfall. If the stock retraces, then you still end up with a profit on the entire trade anyway.

This trading plan satisfies the basic human needs for being rewarded when you get things right. It's always demoralizing when you let a winning position slide into a loser, and this trading plan prevents that from happening.

### Chapter 11 Major Learning Points

In this chapter, we learned how to start structuring our trading plans according to the main strategies that we're going to focus on. In Chapter 12, we look at the OVI and how to trade with it in more detail.

If you think about trading in terms of a business process, you'll be able to take a structured approach, which will enable you to focus and eliminate clutter.

Discretionary trading plans are personal. It's okay to apply your own personal stamp on it (for example, I and many of my students set a more conservative first profit target than the 0.382 extension), but still retain the structure I've outlined. The most important rule is: *Keep your plan simple*. Too many traders spend all their time experimenting with thousands of analytical tools and indicators, never quite finding their nirvana. The truth is that there is no nirvana, so stick to what works well enough to make you money consistently in a way that doesn't stress you out. The method should give you a good probability of success combined with proper entry/exits so you cannot get too badly hurt if the trade doesn't go your way. My trading plans embrace this approach.

As a trader or investor there are five things that can happen: *You can make a lot of money, you can make a little money, you can make nothing, you can lose a lot of money, and you can lose a little money*. Provided you can remove the "losing a lot of money" from the equation, you will succeed.

Stick with my trading plans and become a real player, trading profitably with high probabilities on your side. Although you want to remain emotionally neutral in this activity, it's natural to allow yourself to feel some real excitement and anticipation about your success in consistently applying these principles.

Now for the OVI...



## chapter 12

# Trading with the OVI

We only use the OVI with continuation patterns and channel breakouts.

\$68.18 and \$93.09.

On March 3, 2008, Bear Stearns closed at \$77.32 (see Chart 12.1). Around this time, many commentators suggested that BSC could be an aggressive takeover target and were therefore bullish on the stock.

What they could not see was an indicator that had dropped to its lowest possible reading for BSC. For the next two weeks, the indicator remained at its most negative reading for all but two days. If they had seen the indicator, they could never have been bullish about BSC's prospects.

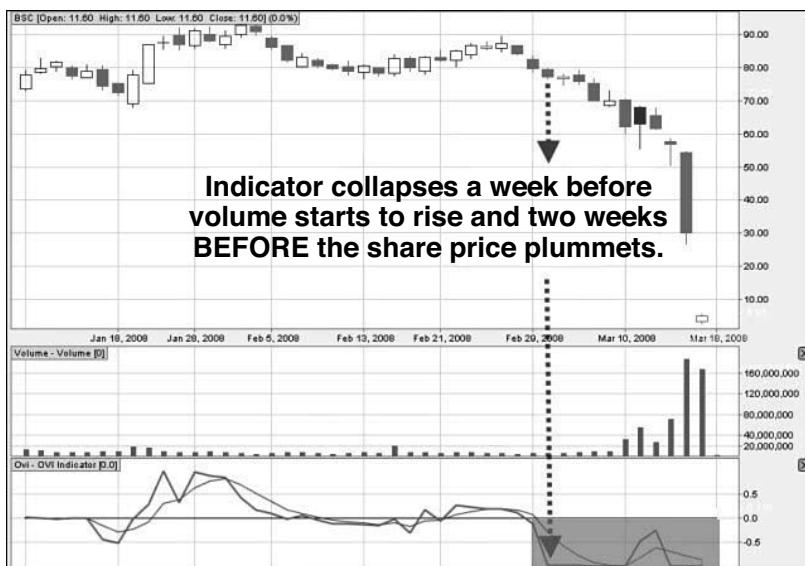
In this chapter, I summarize my proprietary OVI indicator. For more details and video tutorials, go to my free website, [www.theinsideredge.com](http://www.theinsideredge.com).

From January 1, 2008, until February 28, 2008, Bear Stearns (BSC) shares traded in a range between

**Chart 12.1 ● BSC March 3, 2008.**

Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

Exactly two weeks after the unknown indicator had plummeted, BSC went into free-fall, reaching a low of \$2.84. Bear Stearns was not taken over but rescued from oblivion by JP Morgan at \$10 per share. This was a far cry from the heights of \$77.32 just two weeks before (see Chart 12.2).

**Chart 12.2 ● BSC March 17, 2008.**

Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

Not one commentator saw this coming, even though it proved to be one of the most dramatic falls from grace in stock market history.

But the indicator itself highlights the fact that there were (options) traders who did see it coming. That's why the indicator was so negative, because it was following their trading activities, and of course those (options) traders made a fortune from the demise of Bear Stearns.

The indicator we're referring to is called the OVI. It measures options transactions for individual stocks. And in the case of BSC, when the indicator plummeted to the downside and stayed down, it was telling us that the options transactions were dramatically bearish. The BSC share price took some time to reflect this.

In other words, the BSC's options activity preceded the share price. And for something like that to happen, someone, somewhere had to know something.

## What Is the OVI?

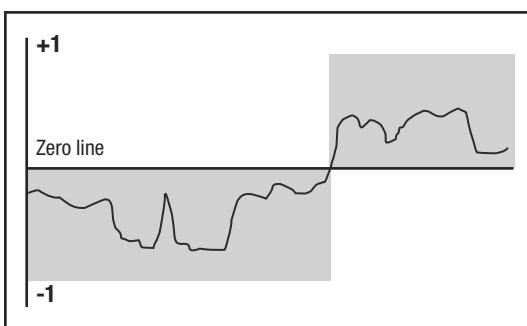
The OVI measures options transactions data for any individual stock that is optionable and then plots it as a line that oscillates between  $-1$  and  $+1$ . In the middle of this range is the horizontal zero line.

Essentially, the OVI is an algorithm that measures the buying and the selling of share options and simplifies it into that line.

Not all of the options for a particular stock are relevant to the sentiment toward the stock in question. The art is understanding which options are most relevant for each stock and when. This needs to be a highly dynamic indicator.

In terms of the line itself, we look to correlate a positive OVI with a bullish chart pattern (such as a bull flag or bullish channel breakout) and a negative OVI with a bearish chart pattern (such as a bear flag or bearish channel breakout).

**Diagram 12.1 ● OVI simple line.**



The OVI provides us with a powerful qualifier for placing the trade. The ultimate signal is where the OVI has been positive for several days and the stock forms a bullish pattern, or where the OVI has been negative for several days and the stock forms a bearish pattern. These scenarios give us extra confidence that if the breakout materializes, it's likely to take us to our first profit target.

## The OVI Is Easy to Use

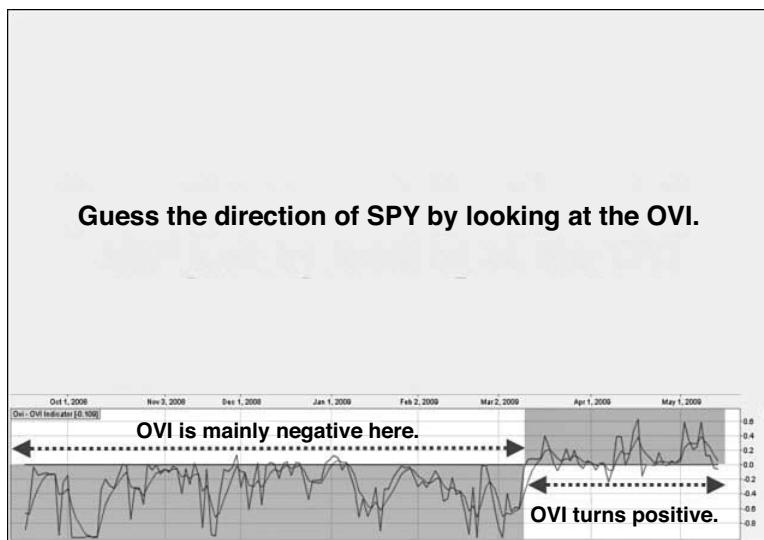
The OVI works particularly well with trending stocks where the indicator and the price chart are uncannily well correlated, with rarely any lag between the two.

Consider the following chart. The OVI is the thicker and more jagged of the two lines displayed below the blanked-out price chart of SPY. The smoother line is the moving average of the OVI, which we do not tend to use.

Running from left to right, the OVI is persistently negative, and in the final third, it turns positive and remains there for the final third of the chart.

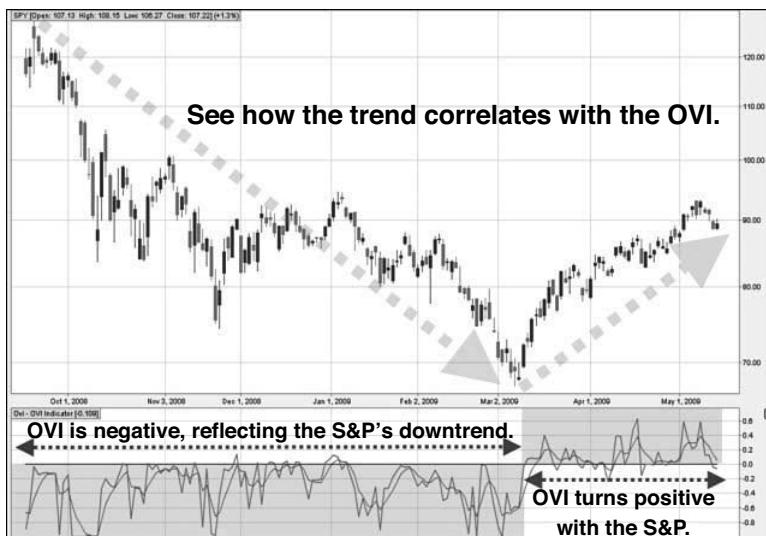
Assuming at this stage you know nothing, take an instinctive guess at the general direction of the SPY chart just by looking at the OVI:

**Chart 12.3 ● SPY blank chart with OVI.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

When the OVI is persistently positive or negative, it often correlates strongly with a trend in the stock price. In the S&P chart, this is exactly the case.

**Chart 12.4 ● SPY chart with OVI.**

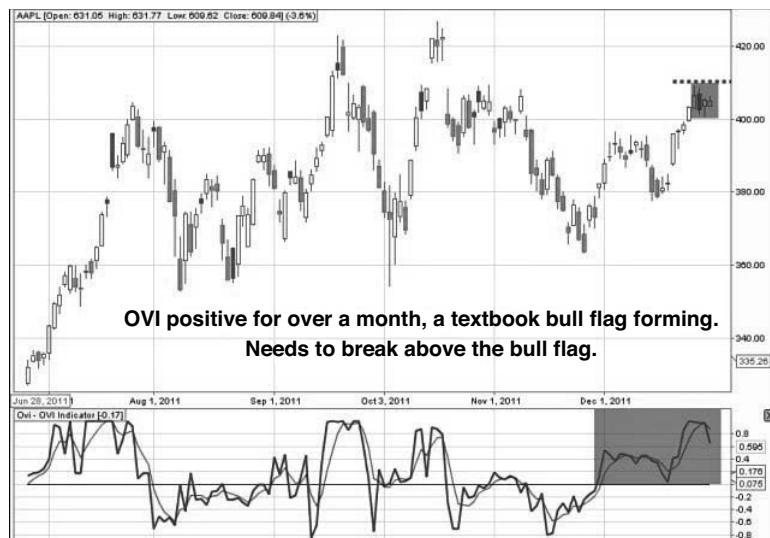
Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

This is just an illustration to show how well the OVI can correlate with trending stocks, and you can see how immediate the correlation can be. This is extraordinary when you consider that the OVI has no direct link with the price chart. The OVI is derived from options transaction data, which means there is often a definite link between options trading activity and the overall direction of a stock.

As I always emphasize, we use the OVI only with breakout patterns, because this radically increases our odds of success. The reason for this is because we're using the OVI as a leading indicator. If the breakout materializes, there is likely to be correlation between the options transaction and the market direction. This means our trade has a good chance of hitting our first profit target.

With AAPL at the end of 2011, the OVI had been persistently positive for over a month while the stock formed a textbook bull flag. This is about as good as it gets and led to a sustained move of \$200, representing a 50 percent rise in just three months. During this move, there were several opportunities to take profits, buy the stock, or add to the position using my method of breakout trading.

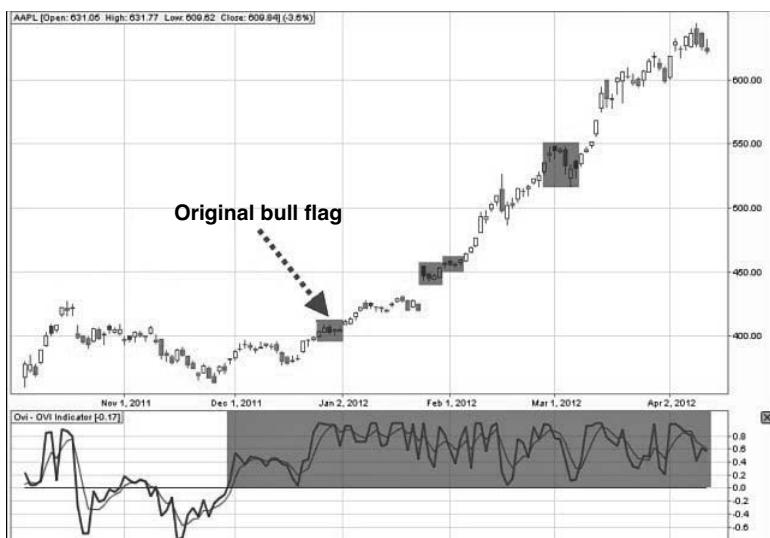
**Chart 12.5 ● AAPL flag December 2011.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

The top of the bull flag in late December 30, 2011 was at \$409.09. We would need a move to break through this level, say at \$409.35 to activate our trade.

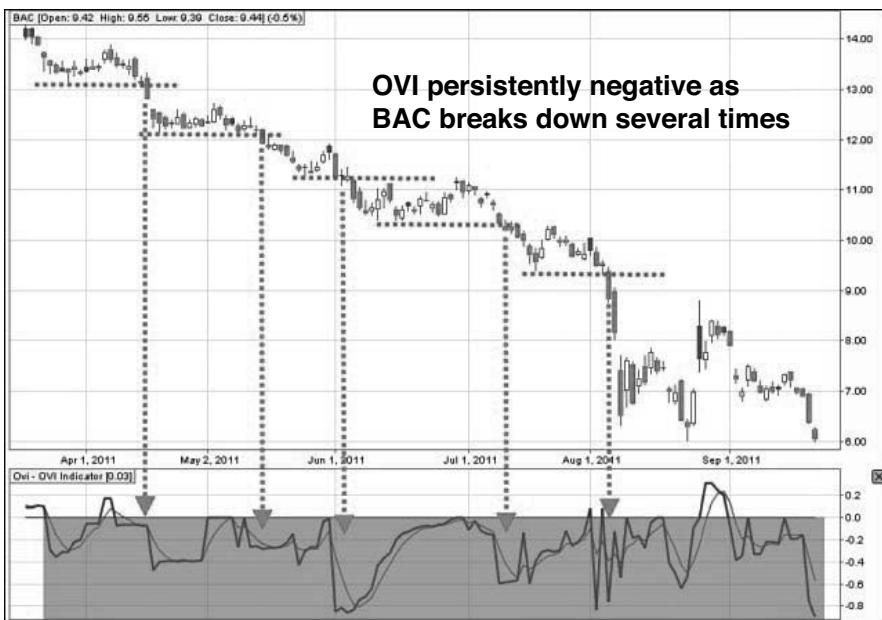
**Chart 12.6 ● AAPL flags and breakouts 2012.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

Similarly, BAC has repeatedly given many opportunities for traders to prosper as it breaks from established levels of support and resistance. In Chart 12.7, you can see levels of support crumbling as the OVI is persistently negative.

**Chart 12.7 ● BAC bearish breakouts.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

Remember, if the breakout doesn't materialize there is no trade. Ultimately we're looking for the confluence of the pattern, the OVI, and the breakout in order for our involvement to be restricted to only the best opportunities. This is our unique edge.

## Why the OVI Works if You Use It the Right Way

Consider a serious player who has good information about a stock and wants to accumulate a big position in it. Ultimately he'll want to keep his trades discreet so he can accumulate a large position without affecting the share price. Also, because he is confident in that information, he'll want as much leverage as he can get with it.

The only place he can achieve this discretion and leverage is in the options market, so that's where he goes. The OVI is able to highlight this kind of activity just like in the Bear Stearns case and countless others that are less dramatic, but equally tradable.

It's crucial to understand that we only use the OVI with our favored continuation patterns, namely flags, consolidations, and channel breakouts. Using it this way, the OVI effectively becomes a leading indicator like no other.

The pattern must always come first. Without a pattern, there is no trade because we have to define our entry and exit levels around the pattern's parameters. The premise of our trading plan is:

Continuation or Breakout Chart Pattern + OVI + Trading Plan

## Components of the OVI

Essentially the OVI comprises three main components:

- Option volume
- Open interest
- Implied volatility

The weightings of these components and which options to use at different times are dynamic.

As a rule, the biggest concentration of options volume occurs near-the-money. Typically the nearby out-of-the-money strikes have slightly greater volumes than the nearby-in-the-money options. This is because the nearby OTM options attract both buying and short selling activity.

When a liquid stock is trending, the OVI will often correlate closely by remaining in the positive zone (bullish) or negative zone (bearish).

The OVI is also useful in sideways markets where it can often indicate the most probable direction of the breakout.

In choppy markets the OVI may also be choppy, in which case we wait until we can get a clear indication.

## When to Use the OVI and When Not to Use It

The OVI is not always "readable" as such. Only the stocks with adequately liquid options are suitable for our purposes. Sometimes stocks fall in and out of OVI tradability as a flurry of activity might be followed by relative inertia. This is actually an advantage because you can then recognize when a stock's OVI is relevant.

## OVI Qualifying Stocks

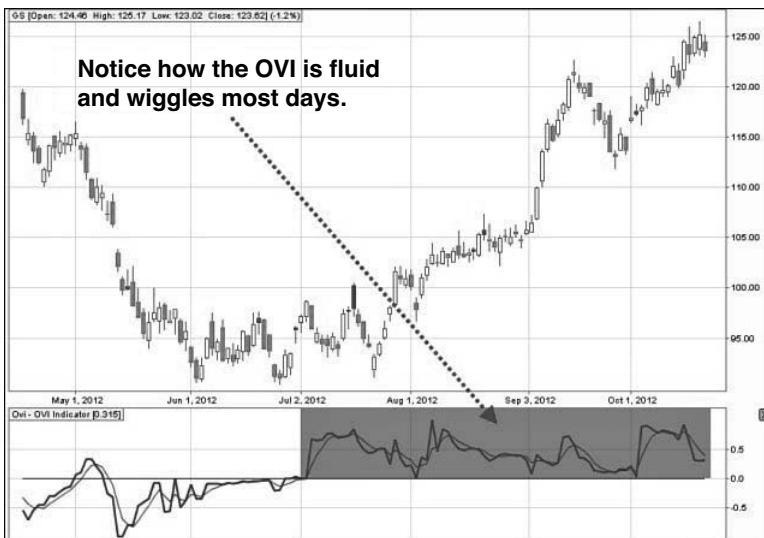
Only optionable stocks can have an OVI reading. These options must be liquid with consistent and regular transaction activity together with a decent volume traded most days. This ensures the OVI is responsive and wiggles almost every day. This is what we want to see.

Typically, a stock with ample options liquidity tends to be a large cap stock with actively traded shares.

In the figure that follows (Chart 12.8), you can see that the OVI is responsive and moves virtually every day. There is not a prolonged series of days where the OVI is completely flat horizontal. Even during the time where it is relatively flat from mid-August to the end of September, it still wiggles most days. Also, it helps that this is a chart of XOM (Exxon Mobil), which we know is actively traded.

Notice also how the OVI breaks into positive territory at the beginning of October just before the stock break out of its two-month resistance. The OVI goes positive a few days beforehand as the stock drifts upward but before it actually breaks out through \$75.00.

**Chart 12.8 ● A qualifying OVI.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

## When the OVI Is Unreadable

The OVI needs to be responsive and wiggle on a daily basis. Where the OVI becomes horizontal and does not wiggle, it cannot be interpreted for our purposes.

In Chart 12.9, CBEY's OVI rarely wiggles and spends much of the time stuck horizontally on the zero line. This reflects a lack of liquidity in the options, and therefore, an unreadable OVI.

**Chart 12.9 ● A nonqualifying OVI.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

Any kind of persistently flat, horizontal action for the OVI is unreadable for our strategy. Some stocks' OVIs have horizontal lines that then swing from one extreme to another (see Chart 12.10).

**Chart 12.10 ● Horizontal OVI.**

Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

## The Ultimate OVI Setup

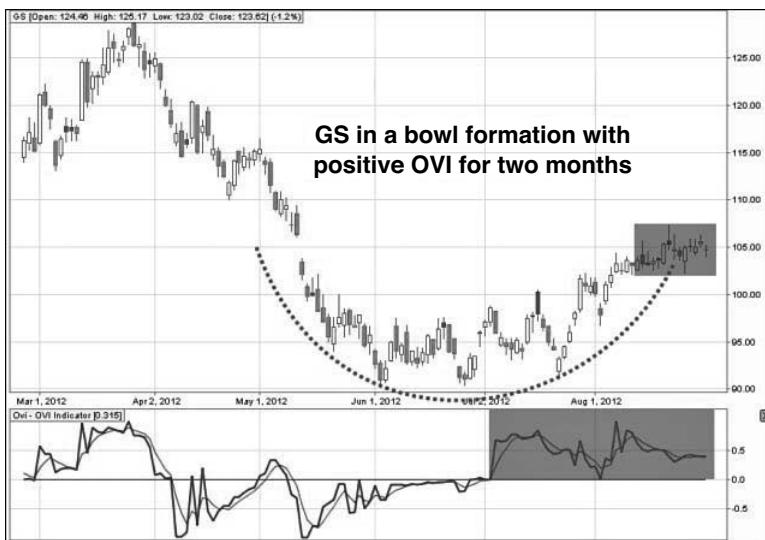
These are the two main setups we look for with the OVI:

- A persistently positive OVI for several days, combined with a bull flag or imminent upside channel breakout.
- A persistently negative OVI for several days, combined with a bear flag or imminent downside channel breakout.

In Chart 12.11, GS forms a constructively bullish bowl pattern, and the OVI has been unambiguously positive for about two months.

There is no bull flag per se, but the pattern is still excellent, as I outlined to my private group at this time. With the recent high at \$107.34, all we need here is a break beyond that, at say \$107.57, for our buy order to be triggered.

**Chart 12.11 ● GS bullish setup.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

In Chart 12.12, RIMM continues its dire performance of 2011 into 2012, making multiple bear flags and breaks through several support levels, all of which were accompanied by a persistently negative OVI. Here RIMM forms a classic bear flag. With the bottom of the flag at \$11.67, all we need here is a break below say \$11.44 for a short to trigger.

**Chart 12.12 ● RIMM bearish setup.**

Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

## The Trading Plan

In Chapter 11, “Putting It All Together—A Call to Action,” I gave an outline sketch of our trading plan for flags, consolidations, and channel breakouts. Now that you have more information about the OVI, we’ll use our examples of GS and RIMM to execute the plans in detail.

Both stocks in Charts 12.11 and 12.11 are forming continuation patterns. GS is consolidating sideways after a bowl pattern, and RIMM is forming a textbook bear flag.

With continuation patterns, I use the OVI as part of my plan.

Essentially the trading plan for flags, consolidations, and channel breakouts is the same. The only difference is that channel breakouts aren’t always preceded by a clear trend.

For bullish scenarios, the OVI must be positive, preferably for several uninterrupted days as the bullish consolidation forms.

For bearish scenarios, the OVI must be negative, preferably for several uninterrupted days as the bearish consolidation forms.

Our basic trading plan for such scenarios is as follows:

1. Find the trade according to the preferred criteria (consolidations, preferably with a corroborating OVI as described above; bullish scenarios with positive OVI; and bearish scenarios with negative OVI). Tidy patterns with clear areas of support and resistance are the best ones to focus on.

Run through the dozen stocks in the OVI Express12 on the [www.theinsideredge.com](http://www.theinsideredge.com) website for free, or if you want a greater selection of stocks, you can subscribe to the OVI Traders Club at [www.ovitradersclub.com](http://www.ovitradersclub.com). Both sites have comprehensive video tutorials and example trades for this method.
2. Check the news to ensure an earnings announcement is *not* about to happen with the stock you're looking to trade. You can do this on my websites by viewing and clicking on the earnings date itself or the earnings bell icon in the OVI Express results table.
3. Decide your strategy (stocks or options). You can learn more about how to trade simple deep in-the-money option strategies at [www.theinsideredge.com](http://www.theinsideredge.com) or [www.ovitradersclub.com](http://www.ovitradersclub.com).
4. Place the trade.
5. Manage the trade.

## Placing and Managing the Trade

### *Bull Flag or Bullish Channel Breakout*

1. Enter your buy order just above resistance; this means just above the channel or flag high. Use stop-limit or conditional orders to open your trades in order to avoid gapping.<sup>1</sup> We typically do not want to trade into a gap because it can mean a loss of control from our preferred entry level.
2. Set the initial stop loss at the same time as your entry. The risk of a trade is the distance between the entry level and the initial stop level, multiplied by the number of lots (shares or contracts). For tightly formed bull flags,

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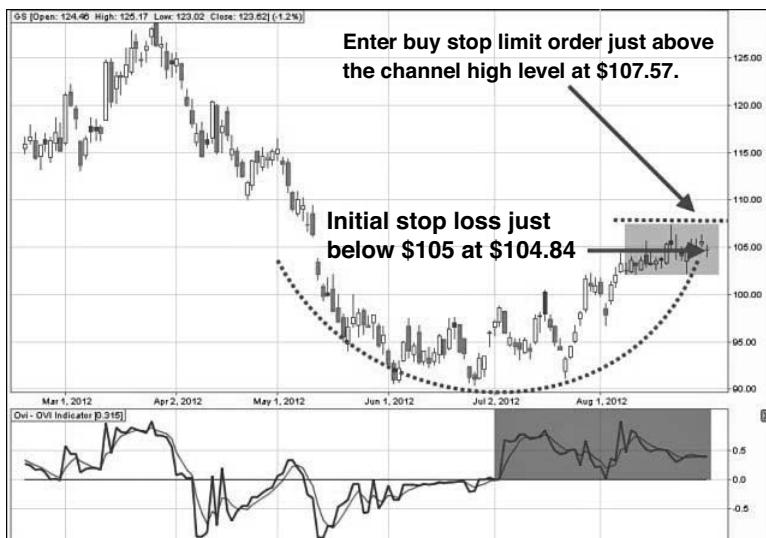
<sup>1</sup> Spread-betting firms (mainly in the UK) do not have stop-limit or conditional order capability at the time of writing. In this case, if you're using a spread-betting account, you might have to place your stop or limit opening order during trading hours. Those with a traditional brokerage account can use stop-limit or conditional orders at any time.

we can enter our initial stops under the flag; however, with deeper consolidations and channels this can expose us to too much risk in the event of a false breakout.

The GS setup is a channel that forms directly after a bowl pattern. The channel is rangebound between \$102.23 and \$107.34. For some, this distance is an acceptable level of risk, whereas for others, it might be too much. In this case, the initial stop can be placed below a support or resistance level actually inside the channel or below a round number value inside the channel area. There is no obvious support or resistance level inside the channel area, but we do have some closes near the \$105 level. So, we can use this as our initial stop area, not too near our entry, but not so distant as to constitute too much risk.

As such, we set our entry level at \$107.57 and our initial stop at \$104.84.

**Chart 12.13 ● GS—Bullish channel entry setup.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

3. Close half of your stake at a predefined profit target, which I refer to as P1. In the case of a channel, this is typically at a 38.2 percent extension (or preferably less) of the channel itself.

The channel range is:  $107.34 - 102.23 = 5.11$

Multiply by 0.382:  $0.382 \times 5.11 = 1.95$

Add to the channel high for P1:  $107.34 + 1.95 = 109.29$

So our first profit target (P1) is at a conservative \$109.29 if GS breaks out above \$107.57. The idea of the P1 is to be conservative and reward you for a trade well executed. Psychologically this is important, because we do not want a winner turning into a loser or a breakeven for that matter. So applying this discipline takes some risk off the table, especially when you apply Step 4, which is when you adjust your initial stop to near breakeven.

With GS here, our P1 target is hit on the same day as the breakout itself. This is not uncommon when we set a modest P1 target like we have here.

**Chart 12.14 ● GS—Bullish channel P1.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

Barring a catastrophic gap against you, which is unlikely, you have locked in some profit. A catastrophic gap at this stage is unlikely because you have so much already in your favor. The chart pattern is in your favor.

The OVI is in your favor. You only entered upon the stock breaking out from its range in the first place. You've already reached your P1 target and removed half your risk by closing half your position profitably. There is no earnings news imminent with the stock (you'd have verified that before placing the trade). So, it would have to be a serious market-wide phenomenon to take you from a partly banked win to an overall loss at this stage. GS would have to gap down by more than \$3.90 from the P1 level, because you've already banked \$1.95 at that level. Furthermore, it would have to be a gap because while banking your profit at P1, you'll also adjust your initial stop into a trailing stop near your entry level, as described in Step 4.

Before we get to Step 4, the question arises: Could we have been more ambitious with the P1 target? It's possible that instead of measuring the channel, you could have measured the bowl instead. The range of the bowl is from a low of \$90.43 (on June 26th) to a high of \$106.12 (on May 10), making the range **15.69**. Multiplying this by 0.382 gives **5.99**. Adding this to \$107.34 gives a P1 target of **\$113.33**, which in all likelihood we'd want to scale down to below \$113. You could even apply a multiple of 0.25 instead of 0.382 to get to a more modest P1 target around \$111. In a bullish market, this would be an acceptable way to calculate the P1 target, and GS did indeed exceed \$113 on the second day of the breakout. But in the climate prevailing at the time of the trade, the first P1 target of **\$109.29** was appropriate without the benefit of hindsight.

4. Adjust the initial stop to near your initial entry point for the remaining half of the stake. If the stock continues to move upward, simply follow it with an upward diagonal trendline as the trailing stop.

For uptrends, our trendline rises diagonally just under the lows of the price bars. When the prices retrace sufficiently, our trendline is hit and the trailing stop is activated, meaning the second half of our trade is exited.

**Chart 12.15 ● GS—Adjusting initial stop.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

5. Monitor and adjust the trailing stop as the price trends until you're stopped out for the second profit (P2). You may use some discretion with your trendline to manage your P2 profit. This includes adjusting the trendline angle and even pausing it to a horizontal angle where the stock goes sideways or forms new flags and channels.

With the GS trade, the exit was slightly before this because it formed a compelling Doji reversal bar on September 14. We therefore exit our P2 position in this case at the break of the Doji low, which indeed happens the next trading day on September 17.

**Chart 12.16 ● GS—P2.**

Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

### *Bear Flag or Bearish Channel Breakout*

1. Enter your short just below support; this means just below the channel or flag low. Use stop-limit or conditional orders to open your trades in order to avoid gapping.<sup>2</sup> We typically do not want to trade into a gap as that means a loss of control from our preferred entry level.
2. Set the initial stop loss at the same time as your entry. The risk of a trade is the distance between the entry level and the initial stop level, multiplied by the number of lots (shares or contracts). For tightly formed bear flags, we can enter our initial stops above the flag, but with deeper consolidations and channels, this can expose us to too much risk in the event of a false breakout.

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<sup>2</sup> Spread-betting firms (mainly in the UK) do not have stop-limit or conditional order capability at the time of writing. In which case, if you're using a spread-betting account you may have to place your stop or limit opening order during trading hours. Those with a traditional brokerage account can use stop-limit or conditional orders at any time.

The RIMM setup is a bear flag in May 2012 forming just below previous support from December 2011. The flag has a tight range, with a low of \$11.67 and a high of \$12.20, both set on May 8, 2012. The tight range means we can set our initial stop just above the high of the bear flag range.

So we set our short entry level at \$11.58 and our initial stop at \$12.28.

**Chart 12.17 ● RIMM—Bear flag entry setup.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

3. Close half of your stake at the P1 level. In the case of a flag, this is typically at a 38.2 percent extension (or preferably less) of the flag pole. In this trade with RIMM, our flag pole starts from the high of \$14.67 on April 30 and shares the low of the flag itself at \$11.67 on May 8.  
The flag pole length is:  $14.67 - 11.67 = 3.00$   
Multiply by 0.382:  $0.382 \times 3.00 = 1.15$   
Subtract from the bear flag low for P1:  $11.67 + 1.15 = 10.52$   
So our first profit target (P1) is at \$10.52 if RIMM breaks down below \$11.58. Remember, the idea of the P1 is to be conservative and reward you for a trade well executed.

In this situation, we would be more conservative and take a dollar move from the low of the flag. So we'd take our P1 at \$10.67 or even a shade nearer just to be ultra conservative. Taking your P1 first profit is nearly always a good thing, so if anything, err on the side of caution.

With RIMM here, our (adjusted) P1 target is hit nine traded days after the breakout.

**Chart 12.18 ● RIMM—Bear flag P1.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

As with the GS trade, it's unlikely that RIMM will gap against you to cause an overall loss. The chart pattern is in your favor. The OVI is in your favor. You only entered upon the stock breaking out from its bear flag in the first place. You've already reached your P1 target and removed half your risk by closing half your position profitably. There is no earnings news imminent with the stock (you'd have verified that before placing the trade). So again, it would have to be a serious market-wide phenomenon to take you from a partly banked win to an overall loss at this stage. RIMM would have to gap up by more than \$1.82 from the P1

level, because you've already banked \$0.91 at that level. Furthermore, it would have to be a gap because while banking your profit at P1, you also adjust your initial stop into a trailing stop near your entry level, as described in Step 4.

4. Adjust the initial stop to near your initial entry point for the remaining half of the stake. If the stock continues to move upward, simply follow it with an upward diagonal trendline as the trailing stop.

For uptrends, our trendline rises diagonally just under the lows of the price bars. When the prices retrace sufficiently, our trendline is hit and our trailing stop is activated, meaning the second half of our trade is exited.

**Chart 12.19 ● RIMM—Adjusting initial stop.**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

5. Monitor and adjust the trailing stop as the price trends until you're stopped out for the second profit (P2). You might use some discretion with your trendline to manage your P2 profit. This includes adjusting the trendline angle and even pausing it to a horizontal angle where the stock goes sideways or forms new flags and channels.

Where you have good reason to believe the stock will trend heavily in your favor, you may want to give it plenty of breathing space by keeping your trailing stop around your initial entry level until the stock has made a sufficient move in your favor. This can be considered where the OVI is persistently in the direction of the dominant trend that you are hoping to ride.

If the stock forms another flag or channel, you can also enter a new trade at the new level and run it simultaneously with a still-open old position where you're riding the trend to a P2.

With the RIMM trade, you have to consider that the stock has been a dog throughout 2011 and 2012 as the company's products have progressively lost ground against the new generation of smartphones. Regardless of the reasons, the stock was in a definite downtrend and the OVI was persistently negative. Given this situation, it's worth allowing the stock some leg room to create new lows.

In Chart 12.20, I've illustrated five levels:

- (1) Initial entry level.
- (2) P1 level.
- (3) Adjusted initial stop level. Having taken our P1, this is where we've moved our initial stop to near our initial entry level, so now we cannot lose on this trade.
- (4) Next potential short entry level. As RIMM retraces upward in early June, it creates new support at \$9.57 on June 4. When the stock starts to fall again in late June, we can enter a new short when it breaks down past say \$9.48.
- (5) Likely P2 level. This is just above \$8.00. We've given the RIMM plenty of room to the downside and on August 8, the stock tests the high from July 9, thereby stopping us out.

Our P2 level here has been subjectively managed, but safely. Unless RIMM was going to gap above \$11.58, we're in safe territory. Even during its June rally, the stock only reaches a high of \$11.09 on June 11. Even if it did reach up to our initial short entry level around \$11.58, we had still banked our P1 profit at \$10.57, meaning the entire trade would still be profitable.

In this case, there is always justification in letting the stock loose after banking the first profit at the P1 target. Because RIMM was in a confirmed downtrend, the OVI was still persistently negative and the P1 level had already constituted a good move and profit. Ultimately, the P2 is partly discretionary, depending how loosely you draw your trendline.

**Chart 12.20 ● RIMM—P2**



Source: OVI Charts. Courtesy of FlagTrader.com. Go to [www.theinsideredge.com](http://www.theinsideredge.com) for more information.

## Summary of Outcomes

Remember from Chapter 11, with breakouts from flags or channels, our possible outcomes are as follows:

- No breakout; this means no losses because our conditional order is only executed into a trade if the breakout occurs.
- The price does break out, triggering our entry, but then reverses before hitting our P1 target. In this case, we're stopped out at our initial stop loss.
- The price breaks out, triggering our entry, reaches P1 for the first profit on half our stake, and then reverses. In this scenario, we make the P1 for half

our stake. Depending on how vicious the reversal is, our P2 can turn out to be the same amount as P1, less than P1 or even just a breakeven if the reversal retraces all the way back to our initial entry point.

- The price breaks out, triggering our entry, reaches P1 for the first profit on half our stake, and then continues the direction of the dominant trend. In this scenario, our P2 is greater than our P1, potentially significantly so. There may even be the opportunity to pyramid into a new trade if the stock keeps making flag and channel breakouts as it trends. Where a price keeps trending, this is where we make our windfall profits seemingly effortlessly.
- For a free video on my trading plan, go to [www.theinsideredge.com](http://www.theinsideredge.com).

## Chapter 12 Major Learning Points

In this chapter we've learned about the OVI and how to trade flags and channel breakouts where the OVI corroborates the direction of the breakout.

The OVI is a unique indicator that gives a simple graphical representation of what the most sophisticated players in the market are doing.

The biggest trading fortunes have been made in the stock market, and notably with trending stocks. It stands to reason that anything that can improve our performance with trending stocks must be an excellent way to increase the size our trading accounts. This is born out with actual results with real traders of all levels of experience, from all over the globe, and from all walks of life.

The ultimate signal is where the OVI has been positive for several days and the stock forms a bullish pattern, or where the OVI has been negative for several days and the stock forms a bearish pattern. These scenarios give us extra confidence that if the breakout materializes, it's likely to take us to our first profit target.

If you stick just to these patterns, you'll be amazed at how well you perform, provided you also stick to the trading plan.

Our trading plan is simple and effective. The first part (getting to P1) is largely prescriptive in order to maximize safety and to ensure you don't allow a winning trade to turn into a losing trade. This is the most common problem most traders encounter.

Once we've banked our profit at the P1 level, the trade becomes more discretionary but still relies on the finest aspects of trading discipline and simplicity. Using this trading plan maximizes safety and allows you to play for a windfall at the same time.

Go to [www.theinsideredge.com](http://www.theinsideredge.com), watch the videos, and start using the free tools. If you want more, go to [www.ovitradersclub.com](http://www.ovitradersclub.com), where you'll have more selection of OVI stocks and access to reversal filter software.

Tools are an essential part of the trading game. To improve my performance, I had to create the tools I knew I needed. The great news is that I make them available to you. My trading approach takes the best aspects from the best traders and then adds simplicity, a disciplined trading plan, and a touch of magic with the OVI.

Don't be greedy. Stick to my plan, and you'll surprise yourself as many others have done.

## appendix I

# Strategy Table

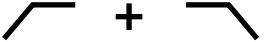
Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Long call</b>	Buy a call.	Capped risk; uncapped reward; better leverage than stock purchase.	Can lose entire stake if the call expires OTM (out-of-the-money).		
<b>Long put</b>	Buy a put.	Capped risk; uncapped reward; better leverage than straight stock shorting.	Can lose entire stake if the put expires OTM (out-of-the-money).		
<b>Short call (naked)</b>	Sell a call.	Short-term income strategy.	Uncapped risk and capped reward.		
<b>Short put (naked)</b>	Sell a put.	Short-term income strategy.	Uncapped risk and capped reward.		
<b>Covered call</b>	Buy stock and sell call.	Protected income strategy. Profit assured if stock remains static or rises. Calls can be sold on a monthly basis to generate income.	Uncapped risk and capped reward.	 + 	
<b>Collar</b>	Buy stock, buy ATM put, and sell OTM call.	Can be a riskless strategy if executed correctly with the right stock.	Net debit out of your account. Works best for long-term trades where you leave it alone.	 +  + 	

## appendix I continued

Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Covered put</b>	Sell stock (short) and sell put.	Net credit into your account.	Uncapped risk and capped reward.	/ + \	\
<b>Synthetic call</b>	Buy stock and buy put.	Capped risk and uncapped reward. Good insurance tactic.	Expensive strategy.	/ + \	\
<b>Synthetic put</b>	Short stock and buy call.	Capped risk and uncapped reward.	More complex than simply buying puts.	/ + \	\
<b>Covered short straddle</b>	Buy stock and sell put and call with same strike and expiration date.	Enhanced income (compared with covered call).	Very high risk and capped reward. Not recommended.	/ + / + \	\
<b>Covered short strangle</b>	Buy stock and sell lower strike put and higher strike call with same expiration date.	Enhanced income (compared with covered call).	Very high risk and capped reward. Not recommended.	/ + / + \	\
<b>Bull call spread</b>	Buy lower strike calls and sell higher strike calls (same expiration).	Capped risk; lower breakeven point than simply buying a call.	Capped reward.	\ + \	/
<b>Bull put spread</b>	Buy lower strike puts and sell higher strike puts (same expiration).	Capped risk; lower breakeven point than simply buying a put; net credit into your account.	Capped reward.	\ + \	/

Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Bear call spread</b>	Sell lower strike calls and buy higher strike calls (same expiration).	Capped risk; bearish income strategy.	Capped reward.		
<b>Bear put spread</b>	Sell lower strike puts and buy higher strike puts (same expiration).	Capped risk.	Capped reward.		
<b>Bull call ladder</b>	Buy lower strike calls, sell higher strike calls, and sell even higher strike calls (all same expiration).	Cheap strategy.	Uncapped risk if stock rises sharply; confusing as to whether this is a bullish or bearish strategy.		
<b>Bull put ladder</b>	Buy lower strike puts, buy higher strike puts, and sell even higher strike puts (all same expiration).	Uncapped reward as the stock falls.	Expensive; confusing as to whether this is a bullish or bearish strategy.		
<b>Bear call ladder</b>	Sell lower strike calls, buy higher strike calls, and buy even higher strike calls (all same expiration).	Uncapped reward as the stock rises.	Expensive; confusing as to whether this is a bullish or bearish strategy.		

## appendix I continued

Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Bear put ladder</b>	Sell lower strike puts, sell higher strike puts, and buy even higher strike puts (all same expiration).	Cheap strategy.	Uncapped risk as the stock falls; confusing as to whether this is a bullish or bearish strategy.		
<b>Straddle</b>	Buy puts and calls with same strike price and expiration.	Capped risk; profitable if stocks rises or falls significantly; uncapped reward.	Expensive; low volatility required for entry, whereas high volatility required once you are in.		
<b>Short straddle</b>	Sell puts and calls with same strike and expiration.	Net credit into your account; profitable if a stock shows low volatility and does not move.	Uncapped risk on either side.		
<b>Strangle</b>	Buy lower strike puts and buy higher strike calls (same expiration).	Capped risk; profitable if stock rises or falls significantly; uncapped reward.	Low volatility required for entry, whereas high volatility required once you are in.		
<b>Short strangle</b>	Sell lower strike puts and sell higher strike calls (same expiration).	Net credit into your account; profitable if stock shows low volatility and does not move.	Uncapped risk on either side.		

Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Strip</b>	Buy 2 puts and 1 call with same strike and expiration.	Capped risk; profitable if stocks rises or falls significantly; uncapped reward.	Expensive; low volatility required for entry, whereas high volatility required once you are in.		
<b>Strap</b>	Buy 1 put and 2 calls with same strike and expiration.	Capped risk; profitable if stocks rises or falls significantly; uncapped reward.	Expensive; low volatility required for entry, whereas high volatility required once you are in.		
<b>Long call butterfly</b>	Buy 1 lower strike call, sell 2 middle strike calls, and buy 1 higher strike call. All strikes evenly apart.	Capped risk and a cheap strategy to enter; can be very profitable if stock shows low volatility after you are in.	Capped reward; awkward to adjust.		
<b>Long put butterfly</b>	Buy 1 lower strike put, sell 2 middle strike puts, and buy 1 higher strike put. All strikes evenly apart.	Capped risk and a cheap strategy to enter; can be very profitable if stock shows low volatility after you are in.	Capped reward; awkward to adjust.		
<b>Short call butterfly</b>	Sell 1 lower strike call, buy 2 middle strike calls, and sell 1 higher strike call. All strikes evenly apart.	Capped risk; profitable if stock shows high volatility after you are in.	Capped reward; awkward to adjust.		

## appendix I continued

Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Short put butterfly</b>	Sell 1 lower strike put, buy 2 middle strike puts, and sell 1 higher strike put. All strikes evenly apart.	Capped risk; profitable if stock shows high volatility after you are in.	Capped reward; awkward to adjust.		
<b>Modified call butterfly</b>	Buy 1 lower strike call, sell 2 middle strike calls, and buy 1 higher strike call. Middle strike closer to higher strike than to lower strike.	Capped risk and a cheap strategy to enter; can be very profitable if stock shows low volatility or rises modestly after you are in.	Capped reward; awkward to adjust.		
<b>Modified put butterfly</b>	Buy 1 lower strike put, sell 2 middle strike puts, and buy 1 higher strike put. Middle strike closer to higher strike than to lower strike.	Capped risk and a cheap strategy to enter; can be very profitable if stock shows low volatility or rises modestly after you are in.	Capped reward; awkward to adjust.		
<b>Call ratio backspread</b>	Sell 1 or 2 lower strike calls and buy 2 or 3 higher strike calls. Buy greater number of higher strike calls in ratio of 0.67 or less.	Capped risk; uncapped and highly geared reward if stock rises significantly.	Lots of volatility required after entry and in the right direction (upward) for your trade to be profitable.		

Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Put ratio backspread</b>	Buy 2 or 3 lower strike puts and sell 1 or 2 higher strike puts. Buy greater number of lower strike puts in ratio of 0.67 or less.	Capped risk; uncapped and highly geared reward if stock falls significantly.	Lots of volatility required after entry and in the right direction (downward) for your trade to be profitable.		
<b>Ratio call spread</b>	Buy lower strike call and sell greater number of higher strike calls (ratio of 0.67 or less).		Uncapped risk; capped reward.		
<b>Ratio put spread</b>	Buy higher strike put and sell greater number of lower strike puts (ratio of 0.67 or less).		Uncapped risk; capped reward.		
<b>Long call condor</b>	Buy lower strike call, sell middle strike call, sell next middle strike call, and buy higher strike call. All strikes evenly apart.	Capped risk and a cheap strategy to enter; can be very profitable if stock remains range-bound after you are in.	Capped reward; awkward to adjust.		
<b>Long put condor</b>	Buy lower strike put, sell middle strike put, sell next middle strike put, and buy higher strike put. All strikes evenly apart.	Capped risk and a cheap strategy to enter; can be very profitable if stock remains range-bound after you are in.	Capped reward; awkward to adjust.		

## appendix I continued

Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Short call condor</b>	Sell lower strike call, buy middle strike call, buy next middle strike call, and sell higher strike call. All strikes evenly apart.	Capped risk; profitable if stock shows high volatility after you are in.	Capped reward; awkward to adjust.		
<b>Short put condor</b>	Sell lower strike put, buy middle strike put, buy next middle strike put, and sell higher strike put. All strikes evenly apart.	Capped risk; profitable if stock shows high volatility after you are in.	Capped reward; awkward to adjust.		
<b>Long call synthetic straddle</b>	Sell 1 stock and buy 2 ATM calls.	Capped risk; profitable if stock rises or falls significantly; uncapped reward; cheaper than doing a normal straddle.	Low volatility required for entry, whereas high volatility required once you are in.		
<b>Long put synthetic straddle</b>	Buy 1 stock and 2 ATM puts.	Capped risk; profitable if stock rises or falls significantly; uncapped reward.	Even more expensive than normal straddle; low volatility required for entry, whereas high volatility is required once you are in.		
<b>Short call synthetic straddle</b>	Buy 1 stock and sell 2 ATM calls.	Profitable if stock shows low volatility and does not move.	Uncapped risk on either side; expensive because you are buying the stock.		

Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Short put synthetic straddle</b>	Sell 1 stock and 2 ATM puts.	Cheap strategy that brings in a net credit to your account; profitable if stock shows low volatility and does not move.	Uncapped risk on either side; large margin required.		
<b>Long iron butterfly</b>	Buy lower strike put, sell mid strike put, sell next mid strike call, and buy higher strike call. (Middle strikes can be the same.)	Cheap strategy that brings in a net credit to your account; capped risk; profitable if stock doesn't move much.	Capped reward; margin required.		
<b>Short iron butterfly</b>	Sell lower strike put, buy mid strike put, buy next mid strike call, and sell higher strike call. (Middle strikes can be the same.)	Capped risk.	Expensive strategy.		
<b>Calendar call</b>	Buy long-term call and sell shorter-term call (same strikes).	Capped risk; can sell the shorter-term calls on a monthly basis to generate income.	Capped reward; can become loss-making if the underlying asset rises too much.		
<b>Calendar put</b>	Buy long-term put and sell shorter-term put (same strikes).	Capped risk; can sell the shorter-term calls on a monthly basis to generate income.	Capped reward; can become loss-making if the underlying asset rises too much.		

## appendix I continued

Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Diagonal call</b>	Buy long-term, lower strike call and sell shorter-term, higher strike call.	Capped risk; can sell the shorter-term calls on a monthly basis to generate income.	Capped reward.		
<b>Diagonal put</b>	Sell shorter-term, lower strike put and buy longer-term, higher strike put.	Capped risk; can sell the shorter-term calls on a monthly basis to generate income.	Capped reward.		
<b>Guts</b>	Buy lower strike calls and higher strike puts.	Capped risk; profitable if stock rises or falls significantly; uncapped reward.	Expensive because you're buying ITM options.		
<b>Short guts</b>	Sell lower strike calls and higher strike puts.	Net credit into your account; profitable if stock shows low volatility and does not move.	Uncapped risk on either side.		
<b>Long synthetic future</b>	Buy ATM call and sell ATM put.	Simulates going long on a stock with no or little net debit or credit.	Same leverage as the underlying.		
<b>Short synthetic future</b>	Sell ATM call and buy ATM put.	Simulates going short on a stock with no or little net debit or credit.	Same leverage as the underlying.		

Strategy	Execution	Benefits	Disadvantages	Component parts	Risk profile
<b>Long combo</b>	Sell OTM (lower) put and buy OTM (higher) call.	Almost simulates going long on a stock with no or little net debit or credit.	Same leverage as the underlying.	 + 	
<b>Short combo</b>	Buy OTM (lower) put and sell OTM (higher) call.	Almost simulates going short on a stock with no or little net debit or credit.	Same leverage as the underlying.	 + 	
<b>Long box</b>	Buy one low strike call, sell one same strike put; sell one higher strike call, and buy one same higher strike put (all same expiration dates).	Create a completely hedged position where the ultimate profit is known with certainty ahead of time.	Complicated; requires many contracts to be effective. Bid/ask spread makes it difficult to guarantee a profitable position.	 + 	

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## appendix II

# Glossary

<b>American Stock Exchange (AMEX)</b>	Securities exchange that handles approximately 20 percent of all securities trades in the U.S.
<b>American-style option</b>	An option contract that can be exercised at any time before the expiration date. Stock options are American-style.
<b>Arbitrage</b>	The simultaneous purchase and disposal of a combination of financial instruments to generate a guaranteed profit automatically.
<b>Ask</b>	The price that you buy at and the price that market makers and floor brokers are willing to sell at.
<b>ATM (at-the-money)</b>	Condition in which the option strike price is the same as the asset price.
<b>At the opening order</b>	An order specifying execution at the market opening or, if not possible, cancelling.
<b>Automatic exercise</b>	Exercise of an in-the-money (ITM) option by the clearing firm at expiration.
<b>Backspread</b>	A spread with more options (calls or puts) bought than sold (the opposite of a ratio spread).
<b>Bear call spread</b>	A net credit spread using calls when the trader buys a higher strike call and sells a lower strike call. The higher strike call is cheaper, hence the net credit. Bear call spreads have limited risk and reward and are more profitable as the underlying asset price falls to the lower strike price.

<b>Bear put spread</b>	A net debit spread using puts when the trader buys a higher strike put and sells a lower strike put. The higher strike put is more expensive, hence the net debit. Bear put spreads have limited risk and reward and are more profitable as the underlying asset falls to the lower strike price.
<b>Bid</b>	The price to sell and the price market makers and floor traders are willing to buy. The bid is the price the market maker pays.
<b>Bid-ask spread</b>	The difference between the bid and ask prices. A buy is made at the ask and a sale at the bid. The ask is always higher than the bid.
<b>Blow off top</b>	A large rise in price followed by a quick drop, often accompanied with high volume; a technical indicator signaling the end of a bullish trend.
<b>Bond</b>	A debt instrument used by governments and corporations to raise capital. The bond obligates the organization to pay its holders a fixed rate of return (coupon) and repay the principal of the debt at maturity. Bonds are traded (the CBOT is one of the major bond exchanges) and their values are directly correlated with interest rates and interest-rate speculation by the markets. The lower interest rates are projected, the higher the value of the bond.
<b>Breakeven</b>	The point(s) at which a risk of a trade equals zero.
<b>Breakout</b>	Emergence upward beyond resistance or downward below support.
<b>Broker</b>	A person who charges commission for executing a transaction (buy or sell) order.
<b>Bull</b>	Someone who expects the market to rise.
<b>Bull call spread</b>	A net debit spread using only calls that the trader buys at a lower strike call and sells at a higher strike call. The lower strike call is more expensive, hence the net debit. Bull call spreads have limited risk and reward and are more profitable as the underlying asset rises to the higher strike price (see Chapter 7, “Bull Call Spreads and Bull Put Spreads”).
<b>Bull market</b>	A rising market over a period of time (usually a few years).
<b>Bull put spread</b>	A net credit spread using only puts where the trader buys a lower strike put and sells a higher strike put. The lower strike put is less valuable, hence the net credit. Bull put

	spreads have limited risk and reward and are more profitable as the underlying asset rises to the higher strike price (see Chapter 7).
<b>Butterfly spread</b>	A three-leg option strategy using all calls or all puts (see Chapter 9, “Two Basic Sideways Strategies”).
<b>Buy on close</b>	An order stipulating to buy the security at the close of the trading session.
<b>Buy on open</b>	An order stipulating to buy the security at the opening of the trading session.
<b>Buy stop</b>	A buy order for which the price stipulated is higher than the current price. The rationale here is when the buyer believes that if the security breaks a certain resistance, the security will continue to rise.
<b>CAC 40 Index</b>	The Paris Bourse index based on 40 stocks.
<b>Calendar spread</b>	A two-leg option strategy where the trader buys longer-term options and sells shorter-term options. Use all calls or all puts.
<b>Call option</b>	The right, not the obligation, to buy an underlying security at a fixed price before a predetermined date.
<b>Call premium</b>	The price of a call option.
<b>Capital gain</b>	The profit realized from buying and selling an asset.
<b>Capital loss</b>	The loss taken from buying and selling an asset unprofitably.
<b>Chicago Board Options Exchange (CBOE)</b>	The largest options exchange in the world.
<b>Chicago Board of Trade (CBOT)</b>	The oldest commodity exchange in the U.S.—known for listings in T-bonds, notes, and a variety of commodities.
<b>Chicago Mercantile Exchange (CME)</b>	An exchange in which many types of futures contracts are traded in an open outcry system.
<b>Class of options</b>	Options of the same type, style, and underlying security.
<b>Clearing house</b>	A separate institution that establishes timely payment and delivery of securities.
<b>Close</b>	The last price quoted for the day.
<b>Closing purchase</b>	A transaction that closes an open short position.
<b>Closing sale</b>	A transaction that closes an open long position.
<b>Commission</b>	A charge made by the broker for arranging the transaction.

<b>Commodity</b>	A tangible good that is traded on an exchange, for example, oil, grains, and metals.
<b>Commodity Futures Trading Commission (CFTC)</b>	An institution charged with ensuring the efficient operation of the futures markets.
<b>Condor</b>	A four-leg option strategy using all calls or all puts (see Chapter 9).
<b>Consumer Price Index (CPI)</b>	An index measuring the change in consumer prices. An important inflation indicator.
<b>Contract</b>	A unit of trading for an option or future.
<b>Correction</b>	A post-rise decline in a stock price or market.
<b>Covered call</b>	An income strategy involving the simultaneous purchase of the underlying asset and sale of call options (see Chapter 5, “Two Popular Strategies and How to Improve Them”).
<b>Covered put</b>	A high-risk strategy involving the simultaneous shorting of the underlying asset and put options.
<b>Credit spread</b>	Where the simultaneous buying and selling of options creates a net credit into your account (that is, you receive more for the ones you sell than those you buy).
<b>Day order</b>	An order good for the day only.
<b>Day trade</b>	The acquisition and disposal of an asset in the same day.
<b>Day trading</b>	A trading style where positions are closed by the end of every day.
<b>Debit spread</b>	Where the simultaneous buying and selling of options creates a net debit from your account (that is, you pay more for the ones you buy than those you sell).
<b>Deep in-the-money calls</b>	Where the price of the underlying security is far greater than the call strike price.
<b>Deep in-the-money puts</b>	Where the price of the underlying security is far less than the put strike price.
<b>Delayed time quotes</b>	Quotes that are delayed from real time.
<b>Delta</b>	The amount by which an option premium moves divided by the dollar-for-dollar movement in the underlying asset.
<b>Delta hedge</b>	A strategy designed to protect the investor against directional price changes in the underlying asset by engineering the overall position delta to zero.
<b>Delta neutral</b>	Where a spread position is engineered so that the overall position delta is zero.
<b>Derivative</b>	A financial instrument whose value is “derived” in some way from the value of an underlying asset.

<b>Discount brokers</b>	Low commission brokers who simply place orders and do not provide advisory services.
<b>Divergence</b>	Where two or more indicators move in different directions indicating different outcomes.
<b>Dividend</b>	A payment made by an organization to its owners (shareholders), hopefully from profits.
<b>Dow Jones Industrial Average (DJIA)</b>	An index of 30 blue chip stocks traded on the New York Stock Exchange (NYSE). This index is often considered a bellwether of overall market sentiment.
<b>Downside risk</b>	The potential risk of a trade if prices decline.
<b>End of day</b>	The close of the trading day when prices settle.
<b>EPS</b>	Earnings per share. The amount of profits of an organization divided by the number of outstanding shares.
<b>Equity options</b>	The same as stock options.
<b>European-style option</b>	An option that cannot be exercised before the expiration date.
<b>Exchange</b>	Where an asset or derivative is traded.
<b>Exchange rate</b>	The price at which one currency can be converted into another currency.
<b>Execution</b>	The process of completing an order to trade a security.
<b>Exercise</b>	The activation of the right to buy or sell the underlying security.
<b>Exercise (strike) price</b>	The price at which the underlying asset can be bought or sold by the buyer of a call or put option.
<b>Expiration</b>	The date at which the option's capability to be exercised ceases.
<b>Expiration date</b>	The last day on which an option can be exercised.
<b>Extrinsic value (time value)</b>	The price of an option less its intrinsic value. Out-of-the-money (OTM) options are made up entirely of extrinsic (or time) value.
<b>Fair market value</b>	An asset's value under normal circumstances.
<b>Fair value</b>	The theoretical value calculation of an option using a pricing formula such as the Black-Scholes Options Pricing Model.
<b>Fibonacci retracement</b>	Where prices on a chart move off their latest tops or bottoms in swings of 38.2 percent, 50 percent, or 61.8 percent from their previous bottoms or tops before resuming their original trend direction. The most common and easiest to spot is 50 percent.

<b>Fill</b>	An order that has been executed.
<b>Fill order</b>	An order that must be filled immediately or cancelled.
<b>Fill or kill</b>	An order for which a precise number of contracts must be filled or the order is cancelled.
<b>Floor broker</b>	A member of an exchange who is paid to execute orders.
<b>Floor trader</b>	An exchange member who trades on the floor of the exchange for his own account.
<b>Fundamental analysis</b>	Analysis of a stock security based on the capability of the organization to generate profits for its shareholders. Such analysis embraces earnings, PE ratios, EPS, net assets, liabilities, customers, and so on.
<b>Futures contracts</b>	Agreement to buy or sell an underlying security at a predetermined date at an agreed price. The difference between futures and options is that with options the buyer has the right, not the obligation. With futures, both parties are obliged to fulfill their part of the bargain.
<b>Gamma</b>	The speed by which delta changes compared with the speed by which the underlying asset is moving.
<b>Gap</b>	Where the opening bar of a price chart opens and stays beyond (lower or higher) that of the spread of the previous bar. Gaps can be lower or higher.
<b>Good till cancelled order (GTC)</b>	An order that remains active until it is either filled or cancelled specifically by the trader.
<b>Guts spread</b>	An expensive strategy where the trader buys ITM calls and puts to replicate the risk profile of a strangle. It is far cheaper to trade the strangle than a guts.
<b>Hedge</b>	A term for reducing the risk of one position by taking other positions with options, futures, or other derivatives.
<b>Historic (statistical) volatility</b>	A measure of the price fluctuation of an asset averaged out over a period of time. A typical and popular period would be 21–23 trading days.
<b>Index</b>	A group of assets (often in a similar class of sector or market capitalization) that can be traded as a single security.
<b>Index options</b>	Options on the indexes of stocks or other securities.
<b>Interest rates</b>	The rate at which borrowed money is charged by the lender, usually annualized into a percentage figure.

<b>In-the-money (ITM)</b>	Where you can exercise an option for a profit. ITM <i>calls</i> are where the current stock price is greater than the call strike price. ITM <i>puts</i> are where the current stock price is less than the put strike price.
<b>Intrinsic value</b>	The amount by which an option is in-the-money.
<b>Iron butterfly</b>	A four-leg option strategy using calls and puts together.
<b>Japanese candlesticks</b>	A popular method of visually depicting price bars where the open, high, low, and close are shown explicitly. <i>Upward moving price</i> bars are hollow. <i>Downward moving price</i> bars are filled. Different looking bars and different clusters of price bars can lead to different interpretations of future price movements.
<b>LEAPs</b>	Long-term Equity AnticiPation Securities. These are long-term stock options with expirations up to three years in the future. LEAPs are available in calls and puts and are American-style traded options.
<b>Leg</b>	One side or component of a spread.
<b>Leg in/leg out</b>	<i>Legging into a spread</i> entails the completion of just one component part of a spread with the intention of completing the other component parts at more favorable prices later on. <i>Legging out of a spread</i> entails the opposite, whereby you exit your spread one component part at a time with the intention of completing the other component parts at more favorable prices as the underlying security moves in the anticipated direction.
<b>Limit order</b>	An <i>order to buy</i> at a set price that is at or below the current price of the security. An <i>order to sell</i> at a set price that is at or above the current price of the security.
<b>Liquidity</b>	The speed and ease with which an asset can be traded. Cash has the most liquidity of all assets, whereas property (real estate) is one of the most illiquid assets.
<b>Long</b>	Being long means that you are a buyer of a security.
<b>MACD (Moving Average Convergence Divergence)</b>	Measures the difference between two moving averages and is a measure of momentum. As the moving averages drift apart, momentum increases and vice versa.

<b>Margin</b>	An amount paid by the account holder (either in cash or “marginable securities”), which is held by the brokerage against noncash or high-risk investments, or where the brokerage has lent the account holder the means to undertake a particular trade.
<b>Margin account</b>	An account where the brokerage lends the customer part of the net debit required to make a trade.
<b>Margin call</b>	Where the brokerage calls the account holder in order for them to pay more funds into their account to maintain the trade. Note that strategies that involve some form of unlimited risk often require a level of margin to be determined by the brokerage.
<b>Margin requirements</b>	The amount of cash or marginable securities (for example, blue chip stocks) that an account holder must have in his account to write uncovered (or naked) options.
<b>Mark to market</b>	The daily adjustment of margin accounts to reflect profits and losses in such a way that losses are not allowed to accumulate.
<b>Market capitalization</b>	The number of outstanding shares multiplied by the value per share.
<b>Market if touched (MIT) order</b>	An order that becomes a market order if the price specified is reached.
<b>Market maker</b>	A trader or trading firm that buys and sells securities in a market in order to facilitate trading. Market makers make a two-sided (bid and ask) market.
<b>Market on Close order</b>	An order that requires the broker to achieve the best price at the close or in the last five minutes of trading.
<b>Market on open order</b>	An order that must be executed at the opening of trading.
<b>Market order</b>	Trading securities immediately at the best market prices to guarantee execution.
<b>Market price</b>	The most recent transaction price.
<b>Momentum</b>	Where a market direction (up or down) is established.
<b>Momentum indicators</b>	Technical analysis indicators using price movement and volume to determine market direction.
<b>Momentum traders</b>	Traders who use momentum as their primary criteria to invest.
<b>Moving average</b>	The average of a security’s latest prices for a specific period of time (for example, 50 days). Another technical analysis tool.

<b>Mutual Fund</b>	An open-ended investment fund that pools investors' contributions to invest in securities such as stocks and bonds.
<b>Naked</b>	Selling naked options refers to a sold options contract with no hedge position in place. Such a position leaves the option seller (writer) exposed to unlimited risk.
<b>Nasdaq</b>	National Association of Securities Dealers Automated Quotations system. This is a computerized system providing brokers and dealers with securities price quotes.
<b>Near-the-money (NTM)</b>	Where the underlying asset price is close to the strike price of an option.
<b>New York Stock Exchange (NYSE)</b>	The largest stock exchange in the U.S.
<b>Note</b>	A short-term debt instrument. They normally mature in five years or less.
<b>OEX</b>	Standard & Poor's 100 Stock Index.
<b>Offer</b>	The lowest price at which the market maker is willing to sell. Also can refer to the "ask" of a "bid-ask" spread. <i>See Ask.</i>
<b>On-the-money (at-the-money)</b>	<i>See ATM (at-the-money).</i>
<b>Open outcry</b>	Verbal system of floor trading still used at many exchanges (for example, the CME and CBOT).
<b>Opening</b>	The beginning of the trading session at an exchange.
<b>Opportunity cost</b>	The risk of an investment expressed as a comparison with another competing investment.
<b>Option</b>	A financial instrument that gives the buyer the right, not the obligation, to buy (call) or sell (put) an underlying asset at a fixed price before a predetermined date.
<b>Option premium</b>	The price of an option.
<b>Option writer</b>	The seller of an option (naked).
<b>Out-of-the-money (OTM)</b>	Where the option has no intrinsic value and where you cannot exercise an option for a profit. OTM <i>calls</i> are where the current stock price is less than the call strike price. OTM <i>puts</i> are where the current stock price is greater than the put strike price.

<b>Par</b>	The nominal value of a bond that is paid back to the bondholder at maturity.
<b>Position delta</b>	The sum of all positive and negative deltas within a hedged trade position.
<b>Premium</b>	The price of an option.
<b>Price bar</b>	The visual representation of a securities price fluctuation for a set period of time. Price bars can be for as little as one minute (or less) and as much as one year (or more).
<b>Price earnings ratio</b>	The price of a stock divided by the earnings per share for that stock. The same figure can be calculated by dividing the market capitalization of a stock by the earnings of that company.
<b>Principal</b>	The purchase price of a bond.
<b>Put option</b>	The right, not the obligation, to sell an underlying security at a fixed price before a predetermined date.
<b>Quote</b>	The price being bid or offered by a market maker for a security.
<b>Ratio backspread</b>	A strategy using all puts or all calls whereby the trader buys OTM options in a ratio of 3:2 or 2:1 to the ITM options he sells. In this way the trader is always long in more options than those he is short in.
<b>Ratio call spread</b>	A bearish strategy that involves the trader being short in more, higher strike calls than those lower strike calls he is long in, at a ratio of 3:2 or 2:1. In this way, the trader will have an unlimited risk profile with only limited profit potential.
<b>Ratio put spread</b>	A bullish strategy that involves the trader being short in more, lower strike puts than those higher strike puts he is long in, at a ratio of 3:2 or 2:1. In this way, the trader will have an unlimited risk profile with only limited profit potential.
<b>Real time</b>	Data that is updated and received tick by tick.
<b>Relative strength</b>	A technical indicator comparing a security's price action as compared to that of an index or another stock.
<b>Relative strength index (RSI)</b>	A technical indicator that is an oscillator that combines price action with volume. Best to use with trending stocks and can be used to indicate potential tops and bottoms.
<b>Resistance</b>	A ceiling on a price chart that is thought to be difficult for the price to burst up through because of past price movements.

<b>Return</b>	The income profit on an investment, often expressed as a percentage.
<b>Reversal stop or stop and reverse) order</b>	A stop order that, when activated, reverses the current position from long to short (or vice versa).
<b>Risk</b>	The potential loss of a trade.
<b>Risk-free rate</b>	The interest chargeable on Treasury Bills (T-Bills) is generally known as the risk-free rate, and it is this rate that is used as a component part of the theoretical options valuation model.
<b>Risk profile</b>	The graphic depiction of a trade, showing the potential risk, reward, and breakeven points as the underlying security price deviates within a range of prices.
<b>Seat</b>	Membership in a stock or futures exchange.
<b>Securities and Exchange Commission (SEC)</b>	Organization that regulates the U.S. securities markets to protect investors.
<b>Security</b>	An instrument that can be traded (for example, stocks, bonds, and so on).
<b>Series (options)</b>	Option contracts of the same class (underlying asset), same strike price, and same expiration date.
<b>Shares</b>	Units of ownership in a company or organization.
<b>Short</b>	Selling a security that you don't actually own.
<b>Short selling</b>	Selling a security that you don't actually own beforehand. You will eventually have to buy it back, hopefully at a reduced price, thus making profit.
<b>Small-cap stocks</b>	Smaller (and sometimes newer) companies associated with high risk and high potential rewards. Can be illiquid to trade with large bid ask spreads.
<b>Speculator</b>	A trader who aims to make profit by correctly assessing the direction of price movement of the security. Generally distinguished from investors, speculators are associated with short-term directional trading.
<b>Spread</b>	The difference between the bid and ask of a traded security. Also a trading strategy that involves more than one leg to create a (hedged) position. Also, a price spread is the difference between the high and the low of a price bar.
<b>Standard &amp; Poor's (S&amp;P)</b>	A company that rates stocks and bonds and produces and tracks the S&P indices.

<b>Stochastic</b>	A technical indicator, which is an oscillator based on the relationship of the open, high, low, and close of price bars.
<b>Stock</b>	A share of a company's stock is a unit of ownership in that company.
<b>Stock exchange or stock market</b>	An organized market where buyers and sellers are brought together to trade stocks.
<b>Stock split</b>	Where a company increases the amount of outstanding stock, thus increasing the number of shares and reducing the value per share. This is usually a sign that the stock has been rising and management is assisting the liquidity in the stock.
<b>Stop orders</b>	<i>Buy stops</i> —where the order price is specified above the current value of the security. <i>Sell stops</i> —where the order price is specified below the current value of the security.
<b>Straddle</b>	A neutral trade that involves simultaneously buying a call and put at the same strike price and with the same expiration date. Requires the underlying asset to move in an explosive nature (in either direction) in order to make the trade profitable.
<b>Strangle</b>	A neutral trade that involves simultaneously buying a call and put at different strike prices (the put strike being lower than the call strike—that is, both OTM) and with the same expiration date. Requires the underlying asset to move in an explosive nature (in either direction) to make the trade profitable.
<b>Strike price (exercise price)</b>	The price at which an asset can be bought or sold by the buyer of a call or put option.
<b>Support</b>	A floor on a price chart thought to be difficult for the price to fall down through because of past price movements.
<b>Synthetic long call</b>	Buying a share and a put, or going long a future and a put.
<b>Synthetic long put</b>	Buying a call and shorting a stock or future.
<b>Synthetic long stock</b>	Buying a call and shorting a put with the same strike price and expiration date.
<b>Synthetic short call</b>	Shorting a put and shorting a stock or future.
<b>Synthetic short put</b>	Shorting a call and buying a stock or future.
<b>Synthetic short stock</b>	Shorting a call and buying a put with the same strike price and expiration date.

<b>Synthetic straddle</b>	Combining stocks (or futures) with options to create a delta neutral trade.
<b>Technical analysis</b>	Using charts and charting techniques and indicators (such as prices, volume, moving averages, stochastics, and so on) to evaluate future likely price movement.
<b>Theoretical value (options)</b>	The fair value calculation of an option using a pricing formula such as the Black-Scholes Options Pricing Model.
<b>Theta (decay)</b>	The sensitivity of an option price to the variable of time to expiration. Remember that options have a finite life (until expiration); therefore, theta is an extremely important sensitivity to consider.
<b>Tick</b>	The least amount of price movement recorded in a security. Was 1/32 until decimalization eliminated the fractions structure.
<b>Time premium</b>	The non-intrinsic component of the price of an option.
<b>Time value (extrinsic value)</b>	The price of an option less its intrinsic value. Out-of-the-money options are entirely made up of extrinsic (or time) value.
<b>Treasury Bill (T-Bill)</b>	A short-term government debt security with a maturity of no more than one year. The interest charged on these instruments is known as the risk-free rate.
<b>Treasury Bond (T-Bond)</b>	A fixed interest U.S. government debt security with ten years or more to maturity.
<b>Treasury Note (T-Note)</b>	A fixed interest U.S. government debt security with between one to 10 years to maturity.
<b>Triple Witching Day</b>	The third Friday in March, June, September, and December when U.S. stock options, index options, and futures contracts all expire at the same time. The effect of this is often increased volume and volatility as traders look to close short and long positions.
<b>Type</b>	The classification of an option—either a call or a put.
<b>Uncovered option</b>	A short position where the writer does not have the underlying security (or call option) to hedge the unlimited risk position of his naked position.
<b>Underlying asset instrument/security</b>	An asset (such as a share) that is subject to purchase or disposal upon exercise.
<b>Upside</b>	The potential for a price to increase.
<b>Vega</b>	The sensitivity of an option price to volatility. Typically, options increase in value during periods of high volatility.

<b>Volatility</b>	The measure of the fluctuation in the price movement in a security over a period of time. Volatility is one of the most important components in the theoretical valuation of an option price.
<i>Historical volatility</i>	The standard deviation of the underlying security (closing) price movement over a period of time (typically 21 to 23 days).
<i>Implied volatility</i>	The calculated component derived from the option price when using the Black-Scholes Option Pricing Model. Traders can take advantage when there is a significant discrepancy between implied and historical volatility.
<b>Volatility skew</b>	Whereby deep OTM options tend to have higher implied volatilities than ATM options. This type of discrepancy again gives the trader the opportunity to make trades whose profits are determined by volatility action as opposed to directional price action.
<b>Volume</b>	<p>The number of underlying securities traded on their particular part of the exchange.</p> <p>When price direction and volume bars are aligned in the same direction, this is a bullish sign (it means that prices are rising with increased volume or that prices are falling with decreased volume).</p> <p>When price direction diverges from volume bars, this is a bearish sign (that is, prices rising with falling volume or prices falling with rising volume).</p>
<b>Whipsaw</b>	A short, sharp price swing that ensures a losing scenario for both sides of a position.
<b>Witching Day</b>	When two or more classes of options and futures contracts expire.
<b>Writer</b>	Someone who sells an option.
<b>Yield</b>	The rate of return of an investment, expressed as a percentage.
<b>Zeta</b>	An option price's sensitivity to implied volatility.

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