

GUY COHEN

OPTIONS
for
EARNINGS
and
INCOME

OV **OPTIONEASY**
TRADERS

...innovative practical strategies from leading expert Guy Cohen

Preface

I recently received an email from one of my students, Ryan Davies, thanking me for the role I'd played in his extraordinary results.

This in itself is not unusual as I frequently get grateful correspondence from everyday people – possibly just like you - who have transformed their trading performance by adopting my methods and systems.



Guy Cohen

Sometimes they're absolute beginners and sometimes they're in the last chance saloon of trading, just about to give up, but giving it one final try. This was the case of Ryan who wrote:

Dear Guy

Thanks so much for the great phone call. The interest you take in your students and being available personally to respond to questions, is something I have not encountered elsewhere in my educational pursuit of trading options ...

I have read well over 3,000 pages from the so-called top educators on the subject, and spent over \$25,000 in education costs, only to run deeper in to loss ...

After attending your workshop telecast in November, I came to understand the simple principals of the OVI method, your website and your clear instruction ...

As you recommended, I have developed a strict trading plan (including your dynamic trailing stop method) that I now do not stray from ...

Total gain with various entry dates and all ITM long calls:

I am up **\$68,050** on **KR** and **SWKS** alone from 18-Dec, and another **\$51,950** on an additional five trades.

Have a great time this weekend. Again, it was a treat to talk with you yesterday, and thanks so much for OptionEasy!

All the best

Ryan Davies

Hi, I'm Guy Cohen.

Welcome to this eBook.

Over the years many of my students have become my friends, and I now have a 'trading family' spanning the globe. A growing community of traders who trade my

methods has sprung up by their own initiative. They support each other and welcome new traders who are pre-qualified as my members.

It's an extraordinary phenomenon that has developed, and I believe it's mainly due to one reason. My methods are statistically valid and have been ratified by independent hedge fund quantitative analysts – not the easiest people on earth to please! This has led to us now starting our own fund for institutional investors.

My clients have included:

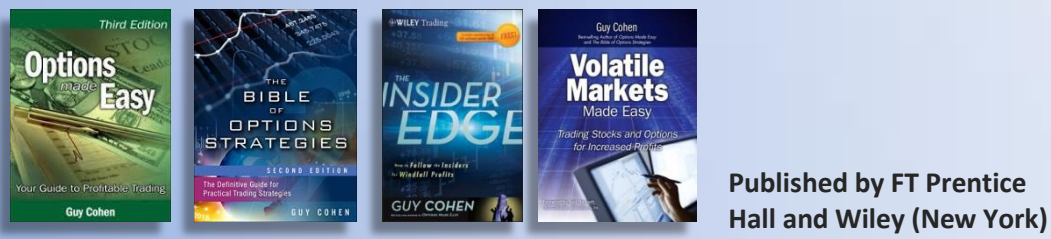


In the meantime it's a pleasure to continue being of service to everyday traders, helping to get people – perhaps like you – on track with your trading.

My methods are based in logic – this is a must for any trading method to have any validity. Essentially my trading premise is rooted in the principles of demand and supply. This is entirely logical. Excess demand will force prices one way, and excess supply will force them another way.

The key is to identify the demand and supply of what by whom.

My best-selling books include:



My OVI indicator measures the demand and supply of options transactions by professional traders. The logic is that if we can identify their sentiment and follow it, then it's likely that we'll outperform the market.

This hypothesis is now a statistically proven fact.

Behind the scenes, the method involves over one billion rows of data, which is growing exponentially every day. It's a very complex series of algorithms, but it's incredibly simple to trade with it. This is the key to the success now enjoyed by people like Ryan.

My trading methods are very simple to adopt, and they're based in reality. This gives anyone using them a real chance of success.

Over the next few weeks, I'll be showing you the trades that I, Ryan and others using my methods have made. You'll notice that they all look remarkably similar. This is because we're trading for specific setups, and with my systems we're able to identify them with ease.

I hope I'll have the same impact on your trading account as I have done with Ryan's and countless others.

In the meantime enjoy this eBook, and I look forward to seeing you on my upcoming webinars where I will show you more.

All the best

A handwritten signature in blue ink that reads "Guy Cohen." The signature is written in a cursive style and is set against a light pink rectangular background.

Introduction

If ACME is trading at \$25.00, how much cash will you have to spend in order to buy 1,000 shares?

Of course the answer is \$25,000. That's a decent amount of money.

So, what if I told you that for 2 years, you could *control* 1,000 shares in ACME for only \$3,600? Would you be interested? Of course you would! This is the sort of thing that options trading allows us to do.

What if those ACME shares then rise to \$30.00? That's an increase of 20%. Not bad. Until you then see how much the options rose by. The equivalent options trade would have risen by a minimum of around 40% at the expiration date. If the share price rose to \$30.00 in few days, then you could be looking at a 100%+ increase in just a few days, ie before expiration. This is another thing that options trading allows us to do.

There's more!

- ✓ Options empower you to profit from stocks that are rising, falling or doing nothing at all.
- ✓ Options enable you to supplement a new stream of income on a regular basis.
- ✓ Options allow you to protect your existing positions like an insurance policy.
- ✓ Options enable you to profit without having any directional bias at all.

These are just a few of the compelling reasons why options are so appealing to so many investors wanting to take control of their financial destiny. Before we get over-excited about the opportunities that options can give us, we should consider options as a safety first tool. True, options can present us with high yielding opportunities. But high yielding opportunities don't necessarily translate into profitable trades. So it's healthy to view options, at least initially, as something that can prevent serious losses occurring in our trading accounts. As we become more consistent with our results, then we can also start looking at the more exciting opportunities, whilst still not forgetting the safety-first philosophy for our bread and butter.

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Welcome to one of the most *practical* options courses you'll ever read!

In this eBook I am going to outline the basics of options, and then my favourite strategies.

There are scores of options strategies – OptionEasy covers around 60 of them. But you should stick to around a dozen. You need to keep it simple, and you need to trade a specific strategy in conjunction with an appropriate chart setup.

I emphasis *practical* because there's a difference between knowledge and being able to go out there and actually *apply* the concepts to create real trading profits

consistently. My OptionEasy approach is all about *doing*. In my classes, people actually *do* things. In all my books and courses we go through practical demonstrations, most of which are real life scenarios literally unfolding as we're doing the analysis. We don't always know for sure what will transpire, just like in real trading, so we create a trading plan for every strategy, every scenario and every trade. We build your experience in such a way that you're familiar with real life scenarios without the benefit of hindsight. Because we don't have hindsight when we trade, it's more realistic to train that way.

From here you can learn how to put a plan together. I mean a coherent, practical plan on which to base your trades, like running a business ... but much easier than that. I remember the first time I ever witnessed a so-called stock market course. It was really slick, with amazing examples and I left it with real optimism and with this tremendous sense of excitement. I already had the academic knowledge, so it seemed logical that now I had the entire armoury required make millions immediately.

There I was the following day, eagerly writing up all my notes, becoming even more excited. I thought I was onto a sure thing. I now knew all the secrets I would ever need to know to make my fortune in weeks! The combination of my professional experience and the seminar I'd just attended would surely put me at such an advantage I could only succeed in record time.

And then I started looking for real trading opportunities. And I couldn't find any good ones because they had given no coherent plan for how to look for them! The course had only shown me trading patterns and scenarios that were in the past. Well anything's easy to spot once it's already happened, and it's easy to say "you could have done this or that"! But to be able to trade successfully, you have to learn how to combine chart setups with the right options strategy.

I make this easy for you by focusing on my favourite strategies and when I will use them. After years of research endorsed by independent hedge fund quants, I can now focus on statistically favourable setups.

Options have formed the most exciting part of my life's work so far. Uniquely, I use options data to help determine likely stock price movement via my proprietary OVI indicator, and I often use options to trade those opportunities.

I love identifying opportunities, trading them and communicating them to an audience as something you *can* understand. If you use the simple rules and learning tips of how to remember things, you'll accelerate your learning experience. Putting concepts into pictures is what took me to new levels of understanding in this field and it will help you too.

Most people trade stocks and shares without being able to conceptualise what is going on. In other words, they trade without a *set of eyes*. That's fatal with options. You have to be able to see where you'll make or lose money.

My training and tools gives you a set of eyes with which to spot opportunities and then have the choice of using a particular options strategy to trade them. It's also my

mission to help you identify real life opportunities and negotiate them profitably without falling into the same traps that most others do, mainly because they don't have the right training or tools.

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This course is not just about options. To trade options successfully you need to understand what makes stocks move too. So we cover that as well and match the strategies with the appropriate chart setups. The course starts with an introduction to the world of options. We cover the basic definitions and the four fundamental strategies on which we build our trading arsenal. Every section ends with a Q&A session to ensure you're making progress as we go along.

In Section 2 we take a break from options and cover the salient areas of Technical Analysis, in other words, how to read and interpret price charts. This is an area which for many people is extremely complicated. Over the years it has become more and more simple to me, and now I'm looking for just a few signals that tell me whether or not to take a trade. That's what we're going to concentrate on here.

In Section 3 we return to options and cover some of the more advanced topics. You'll almost certainly want to revisit this section as you become more familiar with the subject material. Don't worry, it's not rocket science, but it will all be a bit new for you! I've converted just about every concept in options to simple diagrams, so if you understand the logic that's great, but you'll always have the pictures to help you out too!

Sections 4 and 5 are all about trading the strategies in real life. We go into real depth as we start to implement real trading plans for each strategy. The ones we cover are popular strategies and we can use these templates for our trading in the future.

This course will set you on your way for consistent results. You'll understand what types of stocks you're looking for and how to find them. You'll understand some simple but powerful strategies for enhancing your income enough to give you another source of monthly income. You'll also have the grounding to move onto more advanced strategies as you become familiar with the concepts and consistently successful with your results.

Trading is a never-ending learning adventure. You'll learn about the markets, you'll learn about individual companies, and you'll learn about yourself. The best traders tend to be eccentric but brutally honest people. They know what their strengths and weaknesses are and don't flinch from the truth. This enables them to coldly assess whether or not they made a good trade and stuck to their trading plan.

A good trade is one where the trading plan was obeyed. Good traders aren't too precious to criticise themselves when they deviate from the plan. Good traders are typically sore losers too! Good traders love to win, and work hard to achieve consistent results. This is what we all need to strive for, and what you need to be to become a good trader yourself!

Once you realize that it's well within your capabilities and you can crack it, a whole new world of opportunity will appear before you. You'll be able to make money whether the market is moving, up down or sideways. You'll be able to make yourself an extra monthly income. Only options give us that kind of versatility and it's our goal to teach you in a practical way that you can take with you and use to create your first and ongoing trading plan.

Chapter 1 - Option Basics

1.1 Risk Profile Charts

In order to learn about options with maximum speed it's best to transform words and concepts into pictures.

Do you know what buying an asset like a stock or a future looks like? In order 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.

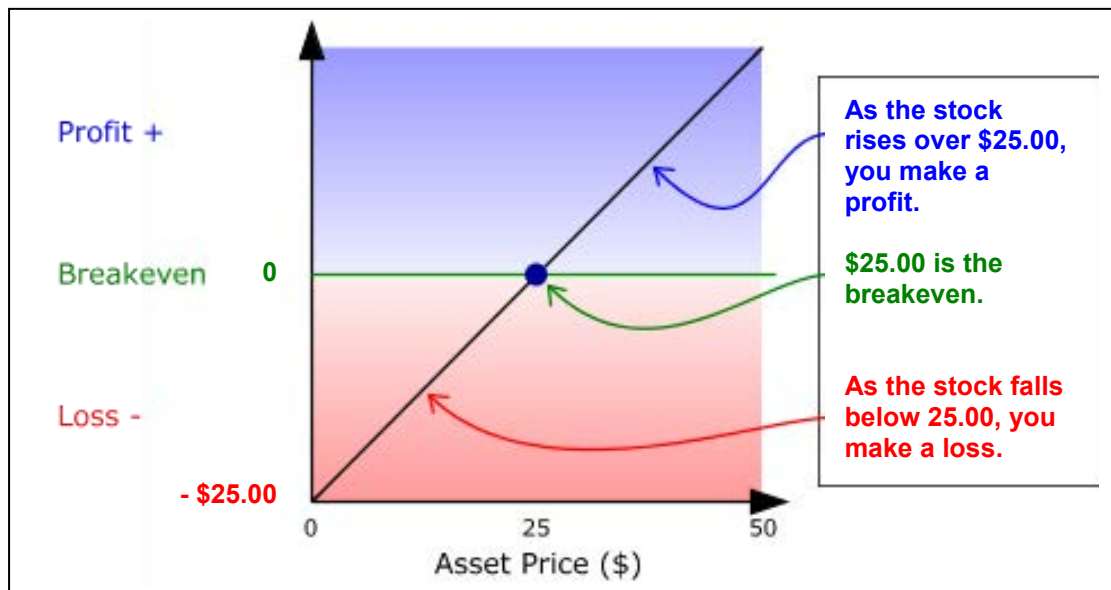
Unlike a standard price chart where the x-axis represents time and the y-axis represents price, a risk profile chart is structured as follows:

Example

Consider buying a stock for \$25.00:

- The x-axis represents the stock price, with the price rising as the line moves right.
- The y-axis represents your profit/loss for the trade.
- The 45° diagonal line is your risk profile for the trade. As the price of the stock rises, so does your profit. So when the asset price rises to \$50, you make \$25 profit.

Current Price	-	Buy Price	=	Profit / (loss)
\$50.00	-	\$25.00	=	+\$25.00
\$10.00	-	\$25.00	=	(\$15.00)



Steps to Creating a Risk Profile Chart

Typically, you're used to seeing charts with share prices on them. The y-axis is the stock price, and the x-axis represents time.

Price / Time Chart

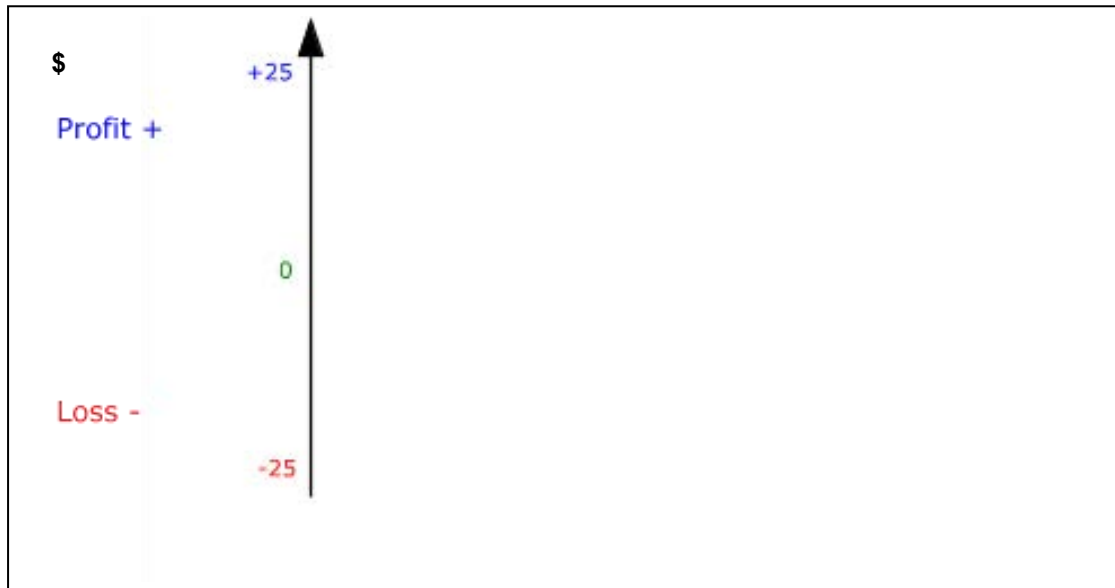


Courtesy of OptionEasy.com.

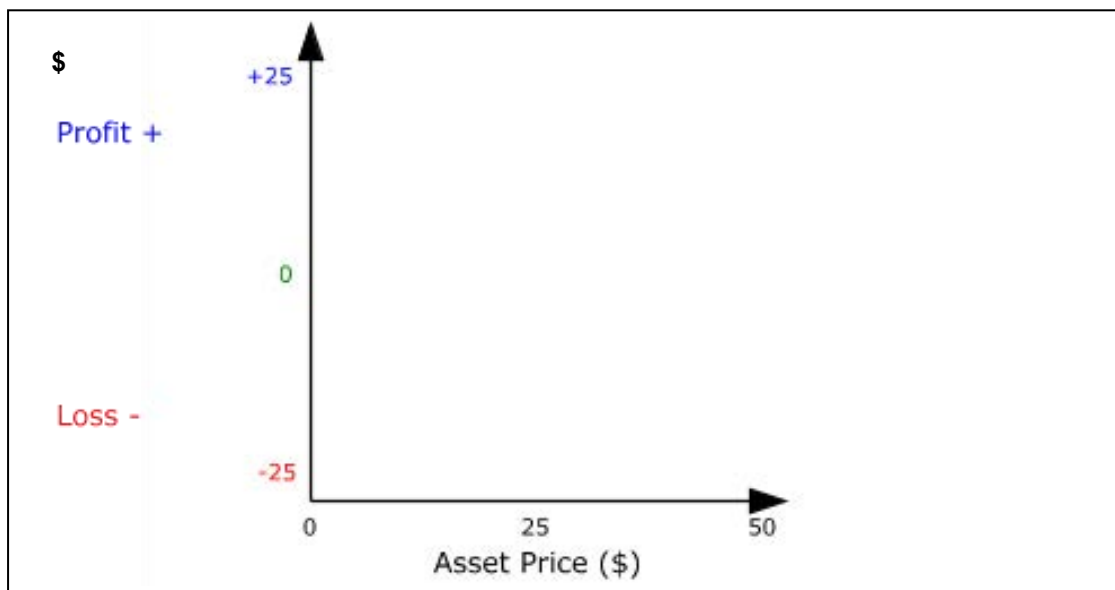
With options we need to see where we make a profit, where we breakeven and where we make a loss, in other words our *Risk Profile*. Because we can create an almost infinite number of scenarios with options, it makes life easier if we can create pictures to interpret our risk profiles, ie a *Risk Profile Chart*.

Here are the steps to creating a risk profile chart:

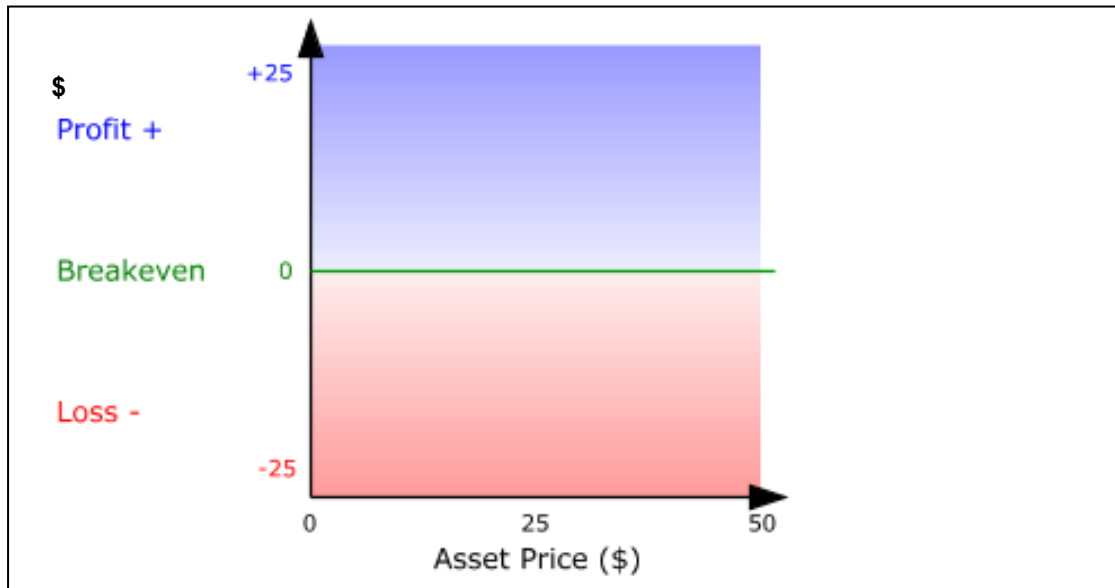
Step 1: y-axis for profit / loss position



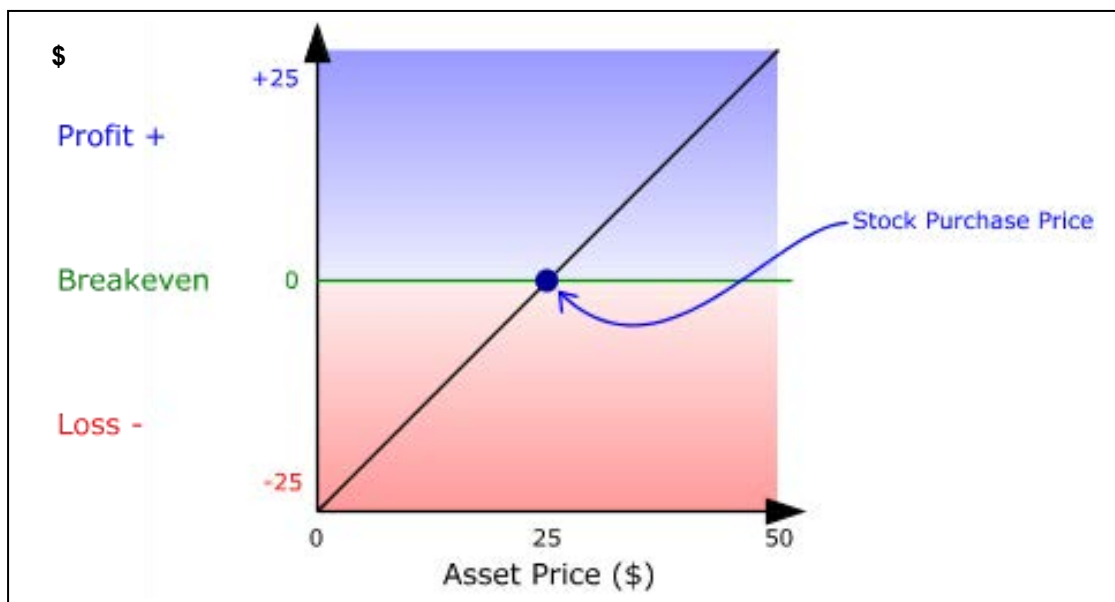
Step 2: x-axis for underlying asset price range



Step 3: Breakeven line



Step 4: Risk Profile line

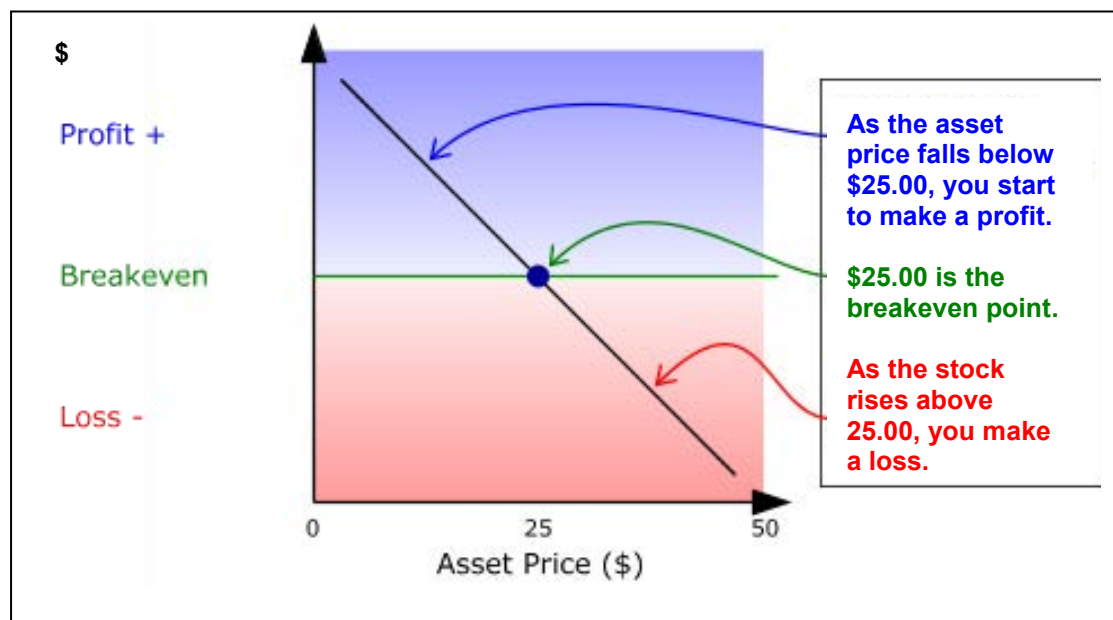


Now you can see what buying a stock looks like, let's look at what "shorting" a stock looks like.

Shorting simply means selling something that you don't already own. Shorting is an accepted concept in some stock markets such as the US, but is not currently allowed in some other stock markets such as the UK.

Remember that when you short you can lose an unlimited amount as the asset price rises, and your maximum profit is the shorted price, here, let's say \$25.00. In order to make maximum profit from a short stock position, the asset would have to fall to zero.

Short Stock Risk Profile



So, now you know how to draw the most basic risk charts, we can move to options and their risk profiles...

1.2 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 will look at after we finish with the definitions.

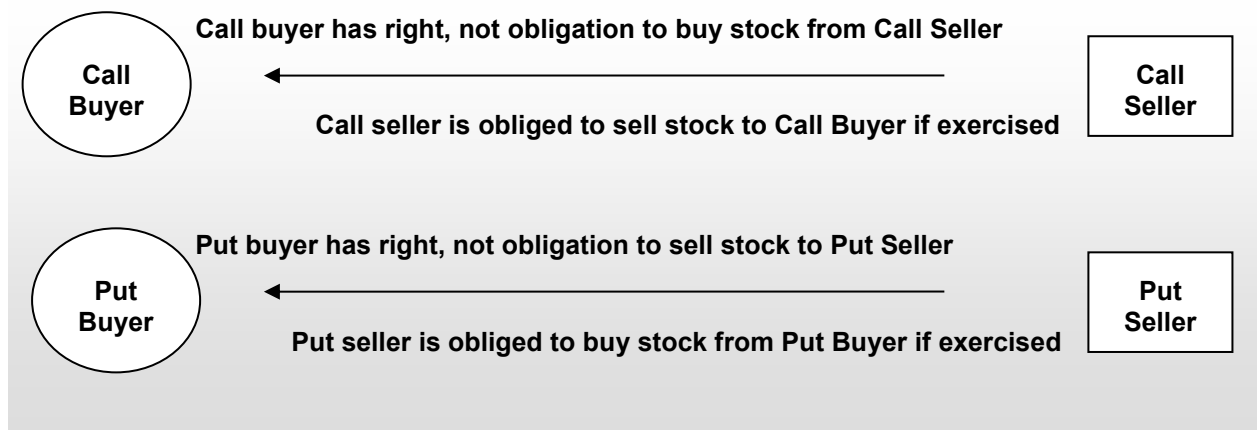
Before we go ahead and look at the ways in which options are valued, let's consider the words '**right not the obligation**':

1.2.1 The Right, Not the Obligation

- Buying an option (call or put) conveys the **right**, not the obligation to buy (call) or sell (put) an underlying instrument (eg 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 (put) from or deliver (call) to the option buyer.
- Selling options naked (ie when you have not bought a position in the underlying instrument or an option to hedge against it) will give you an unlimited risk profile.
- Combined with the fact that you are **obliged** to do something, this is generally not a preferable position to put yourself in.



Now let's consider the words 'to buy or sell an asset':

1.2.2 Types of Option – 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

Memory Tip

Call is to Buy – think of calling **up** a friend - a call is the option to buy, you think the market is going **up**.

The real 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 it to you.

Put is to Sell – think of a "put **down**" - a put is the option to sell, you think the market is going **down**.

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

Option Risk Profiles

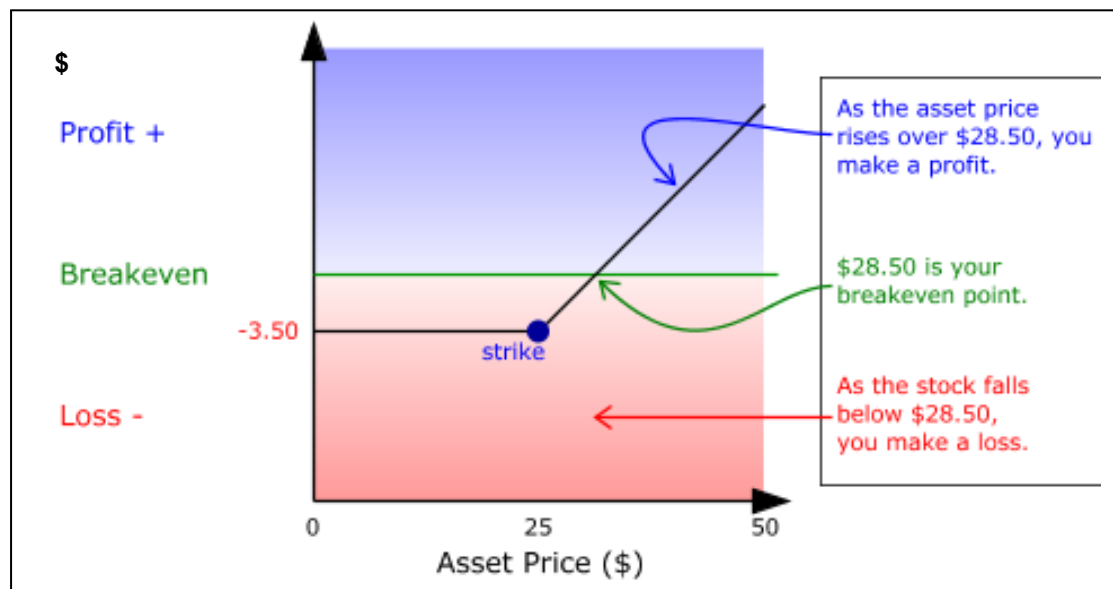
The importance of a risk profile chart becomes clearer when we look at options strategies.

Consider a call option:

A call option is the right, not the obligation, to buy an asset (eg a share) at a fixed price before a predetermined date.

Let's say we want to buy a call option to buy a stock at \$25.00 (strike price) before December (expiration date) and we pay 3.50 (premium) for this option.

Long Call Risk Profile

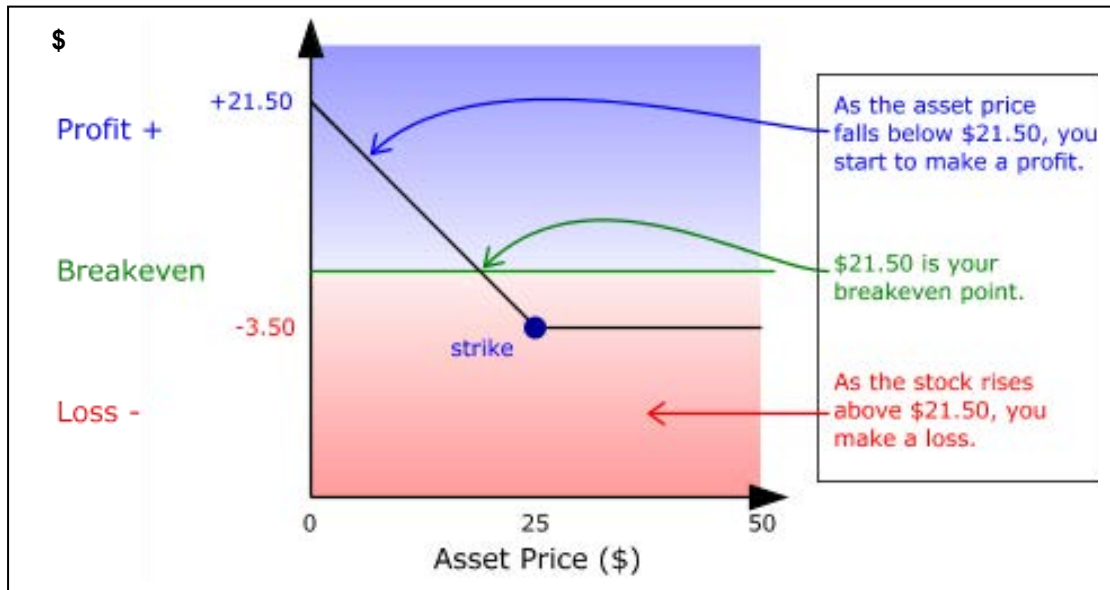


Now let's look at a put option:

A put option is the right, not the obligation, to sell an asset (eg a share) at a fixed price before a predetermined date.

Let's say we want to buy a put option to sell a stock at \$25.00 (strike price) before December (expiration date) and we pay 3.50 (premium) for this option.

Long Put Risk Profile



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 US 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.

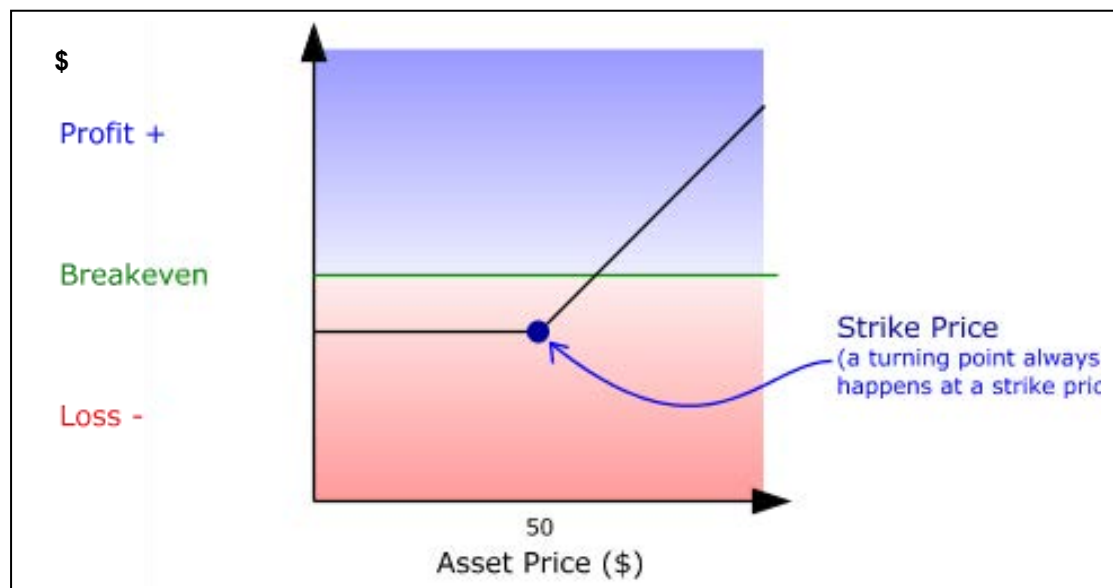
As a rule, stock options are generally American Style. Futures options are generally European style.

Now we need to look at the words ‘**at a fixed price**’:

1.2.3 Exercise (or Strike) Price

The **Exercise (or 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 50.00, then you have bought yourself the option to **buy** the asset at a price of \$50.00.



However, in the real world, you will only want to exercise your right to buy that asset 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, \$40.00. 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**':

1.2.4 Expiration Date

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

At expiration, the **call** option's value is only worth the price of the asset less the exercise price.

At expiration the **put** option's value is only worth the exercise price less the price of the asset.

For US equity options the expiration date falls on the third Friday of every month.

For UK equity options the expiration date falls on the third Wednesday of every month.

1.3 Why Trade Options?

There are several reasons that make options attractive to both professional and private investors alike.

- (i) **Control more for less** - options allow investors and traders to control large quantities of assets for a small amount of money.

Options are traded in contracts. For US stock options, each contract represents 100 individual shares. So when you see an option price, you'd have to multiply the premium by 100 to arrive at the real cost to you in dollars.

For example, a call option costing you, say 1.50 may allow you to control a stock that is trading for \$17.00. If you bought 1,000 shares of the stock, you'd have to pay \$17,000. The call option will cost you only \$1,500 ($100 * 10 * 1.50$). Because 1 contract controls 100 shares, so 10 contracts will control 1,000 shares.

Options are nearly always cheaper to buy than the underlying stock, so you get more for your money. However, option premiums typically move with more volatility than the underlying assets, so they can be more risky, particularly in

percentage terms, than the underlying asset to which they relate. More movement can also mean more reward if you're on the right side of the trade.

- (ii) **Leverage** – relatively small percentage swings in the underlying asset price can cause major swings in the option price.

For example, you buy 100 shares of a stock for \$50.00, costing you total of \$5,000. Buying the equivalent call options, let's say that the at-the-money (ATM – see Section 1.4) call premium is 7.00. A single contract (controlling 100 shares) will cost you \$700.

For illustration purposes only, let's now say that for every \$1.00 the stock moves, the call option also moves 1.00. If the stock rises \$5.00 to \$55.00, this is an increase of **10%**, and you'll make \$500 profit. If your calls also rise by 5.00, this is also an increase of \$500, but a percentage increase of over **170%**!

This is the concept of leverage. It can also work the other way, ie against you. We'll come to that later.

- (iii) **Income** – options can be bought and sold and positions can be combined to meet your personal investment objectives. For many people, extra income is a powerful motivator for trading options. By the end of this course, you will know exactly how to enhance your income by using a very simple and uncomplicated strategy to yield a monthly income, which you can set up with either your broker or spread-betting company.
- (iv) **Insurance** – buying and selling options can help to hedge (mitigate risk) against other positions you may have in the market. In uncertain or volatile markets, you can insure your entire portfolio of stocks, whilst still participating in any upside move.
- (v) **Profit from declining stocks** – this is a very powerful reason to trade with options. Buying a put option means that if the stock falls, the put option will rise and you'll make a profit. It's one of the big moments in your trading career when you profit from a declining stock. It means that you're now looking at stocks as an opportunity, rather than simple as a chart that you want to see rising. Using options, you can profit from any movement (or lack of) in any asset.
- (vi) **Profit from volatile stocks** – options enable you to profit from stocks that move violently without you having to evaluate which way they're about to move. So, if you know a company is about to make an important announcement, and you're sure it's going to make a major impact, but you're not sure about the probable direction of that impact, you can employ a simple strategy to profit from whichever direction the move is. Provided there's enough movement, you can make money from such a strategy.

- (vii) **Profit from rangebound stocks** – just as you can benefit from a volatile stock, you can also make money from assets that don't move at all!
- (viii) **Invest in stocks without paying a dime** – you can even create synthetic positions with options that allow you to simulate the ownership (or the shorting) of an asset without even paying any money at all (or paying pennies).

As you can see, options afford us a variety of flexible alternatives that enable us to make money from a whole variety of scenarios. You don't need zillions in your account to start and you can become consistently successful at trading income strategies and others, provided you don't get greedy and you stick to your rules.

Table: → Summary of Options vs Stocks

Stocks	Options
Stocks consist of individual shares which are units of ownership in a corporation or organization.	Options are derivative instruments. In other words, their value is derived from the underlying stock (or underlying asset).
Individual shares go on in perpetuity (unless the corporation goes bust or is taken over). They do not “expire” as such.	Options have expiration dates. This means that options are wasting assets in that the passage of time will erode that portion of the option's value as the expiration date looms.
Stockholders are the owners of the company and have voting rights. Stockholders are also entitled to dividend payments as and when they are paid.	Options convey no rights of ownership of the underlying asset. They merely convey the right to buy or sell the underlying asset.

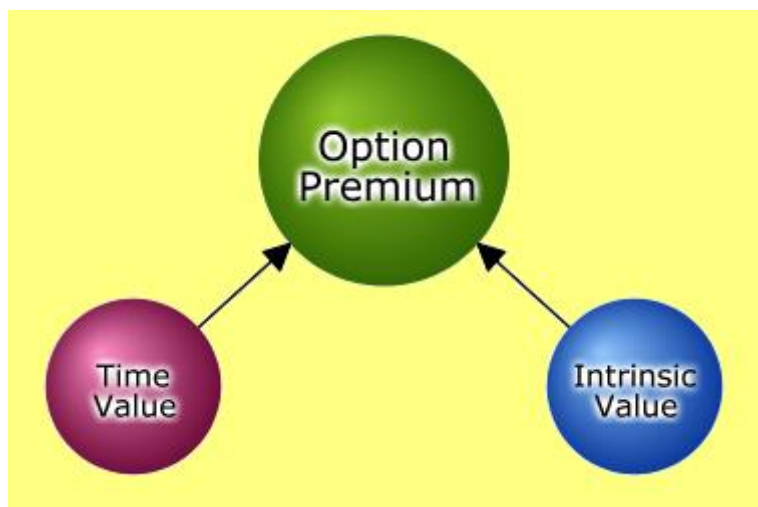
We're now ready to tackle the topic of *Intrinsic Value* and *Time Value*.

1.4 The Valuation of Options

As we said before, options themselves have a value. Remember that options are totally separate entities from 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**
- **Time Value**

Time Value and Intrinsic Value



Generally:

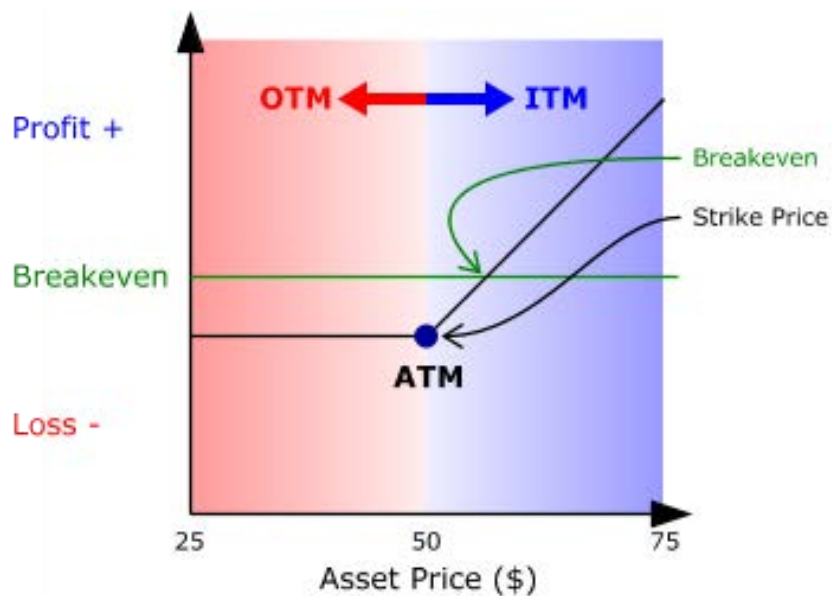
- **Intrinsic Value** is that part of the option's value which is **in-the-money (ITM)**.
- **Time Value** is the remainder of the option's value. Out-of-the-money (**OTM**) options will have no Intrinsic Value, and their price will solely be based on Time Value. Time Value is another way of say Hope Value. This hope is based on the amount of time left to expiration and the price of the underlying asset.

- A call is **in-the-money** when the underlying asset price is greater than the strike price.

A call is out-of-the-money when the underlying asset price is less than the strike price.

A call is at-the-money when the underlying asset price is the same as the strike price.

ITM, OTM and ATM with calls



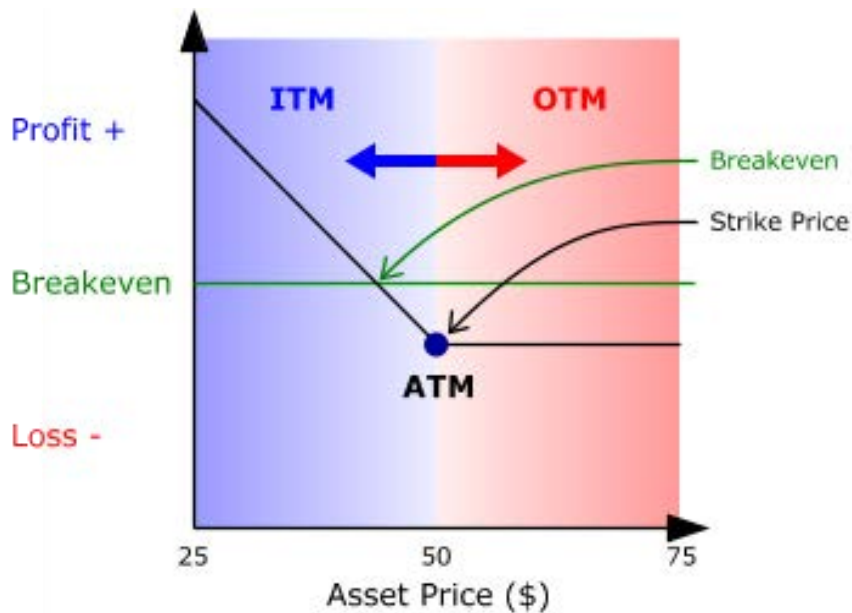
With puts it works the opposite way:

- A put is **in-the-money** when the underlying asset price is less than the strike price.

A put is out-of-the-money when the underlying asset price is greater than the strike price.

A put is at-the-money when the underlying asset price is the same as the strike price.

ITM, OTM and ATM with puts



Time Value and Intrinsic Value for Calls

Where there *is* Intrinsic Value

Call Intrinsic Value	
Stock Price	\$45.00
Call Premium	7.66
Strike Price	40.00
Time to Expiration	3 months
Intrinsic Value	$45.00 - 40.00 = \mathbf{5.00}$

Call Time Value	
Stock Price	\$45.00
Call Premium	7.66
Strike Price	40.00
Time to Expiration	3 months
Time Value	$7.66 - 5.00 = \mathbf{2.66}$

Notice how: (Intrinsic Value + Time Value) = Option Premium

Formulae 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.

Where there is *no* Intrinsic Value

Call Intrinsic Value	
Stock Price	\$57.00
Call Premium	0.93
Strike Price	60.00
Time to Expiration	2 months
Intrinsic Value	$57.00 - 60.00 = \mathbf{0.00}$

Call Time Value	
Stock Price	\$57.00
Call Premium	0.93
Strike Price	60.00
Time to Expiration	2 months
Time Value	$0.93 - 0.00 = \mathbf{0.93}$

Time Value and Intrinsic Value for puts

Where there *is* Intrinsic Value

Put Intrinsic Value	
Stock Price	\$39.00
Put Premium	2.58
Strike Price	40.00
Time to Expiration	2 months
Intrinsic Value	40.00 - 39.00 = 1.00

Put Time Value	
Stock Price	\$39.00
Put Premium	2.58
Strike Price	40.00
Time to Expiration	2 months
Time Value	2.58 - 1.00 = 1.58

Notice how: (Intrinsic Value + Time Value) = Option Premium

Formulae for Intrinsic and Time Values for Puts:

- Put Intrinsic Value = Strike Price – Stock Price
- Put Time Value = Put Premium – Put Intrinsic Value

The minimum Intrinsic Value is zero.

Where there is *no* Intrinsic Value

Put Intrinsic Value	
Stock Price	\$45.00
Put Premium	1.74
Strike Price	40.00
Time to Expiration	2 months
Intrinsic Value	40.00 - 45.00 = 0.00

Put Time Value	
Stock Price	\$45.00
Put Premium	1.74
Strike Price	40.00
Time to Expiration	2 months
Time Value	1.74 - 0.00 = 1.74

1.4.1 The Seven Factors Affecting an Option Premium

There are seven factors that influence an option's premium. If we go back to the definition outlined above, then we can look for clues as to what those factors could be:

An option is the:

Definition	Factor affecting the option premium
<ul style="list-style-type: none"> • <i>right, not the obligation...</i> 	
<ul style="list-style-type: none"> • <i>to buy or sell...</i> 	→ the type of option (call or put) affects the pricing of an option
<ul style="list-style-type: none"> • <i>an asset...</i> 	→ the underlying asset price has an affect on the option premium
<ul style="list-style-type: none"> • <i>at a fixed price...</i> 	→ the strike price influences the option premium
<ul style="list-style-type: none"> • <i>before a predetermined date</i> 	→ the expiration date is another component affecting the option premium

The three other major influences on the pricing of option premiums are:

- **Volatility** The volatility of the underlying asset is a vitally important factor influencing the pricing of option premiums. Note that we're talking about the volatility of the underlying asset, otherwise known as Historical or Statistical Volatility. This is measured as a standard deviation of closing prices for the stock, converted into an annual percentage figure.
- **Risk free Interest rates** This is the short-term rate of government money. It is considered risk free because the chances of the government (of a Western economy) defaulting are very slim!
- **Dividends** This applies to any payments which are made as a reward to owners of the underlying asset. Shareholders may receive a dividend. Bondholders may receive a fixed coupon (like an interest payment).

Summary of the seven factors affecting the pricing of option premiums

1. Type of option (call or put)
2. The underlying asset price
3. The strike price of the option
4. The expiration date of the option
5. The volatility of the underlying asset

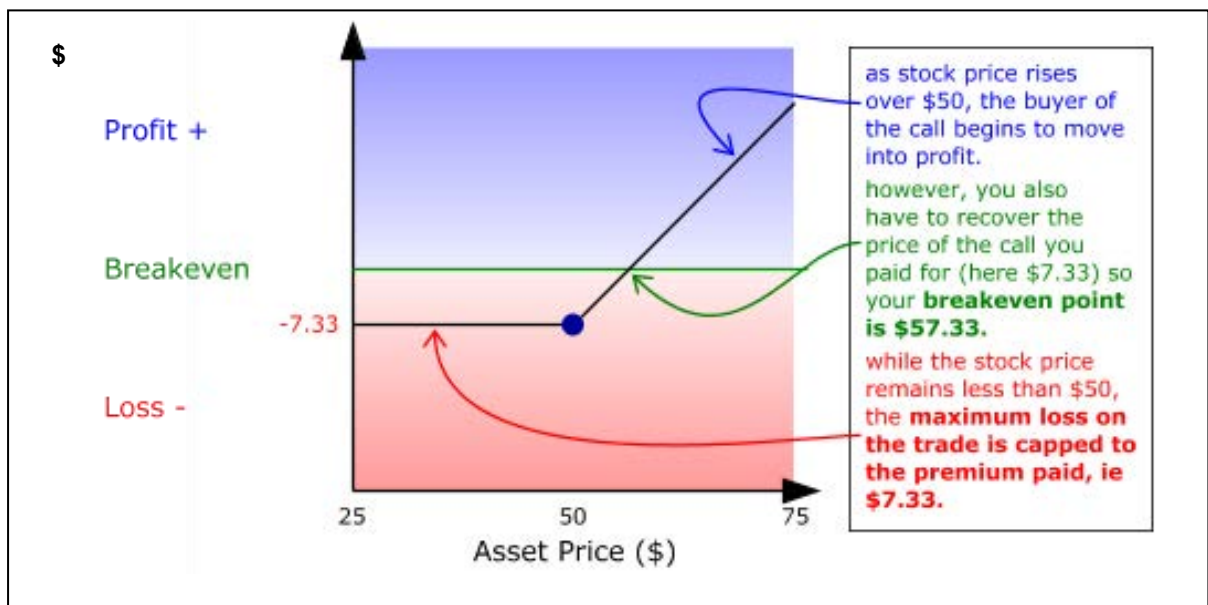
6. The risk free rate of money (short term government rates)
7. Dividends payable and stock splits

1.5 The Four Basic Option Strategies and Their Risk Profile Charts

1.5.1 Long Call

We've already seen the risk profile charts for a long call. We know that a call option gives the right to **buy** an asset. Logically, this suggests that the call option risk profile direction will be similar to that of buying the asset itself. So let's have a look at another example:

Stock Price	\$56.00
Call Premium	7.33
Strike Price	50.00
Time to Expiration	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 (eg 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 **Strike Price**.
- Your maximum risk, when you buy an option, is simply the price you paid for it.
- Your maximum reward is uncapped.

1.5.2 Short Call

When you buy a call, remember that you bought it from someone, who sold it to you. In other words, there are always two sides of a trade. The seller's risk profile must be different to that of the buyer...let's see:

We'll use the same example, but now from the seller's point of view:

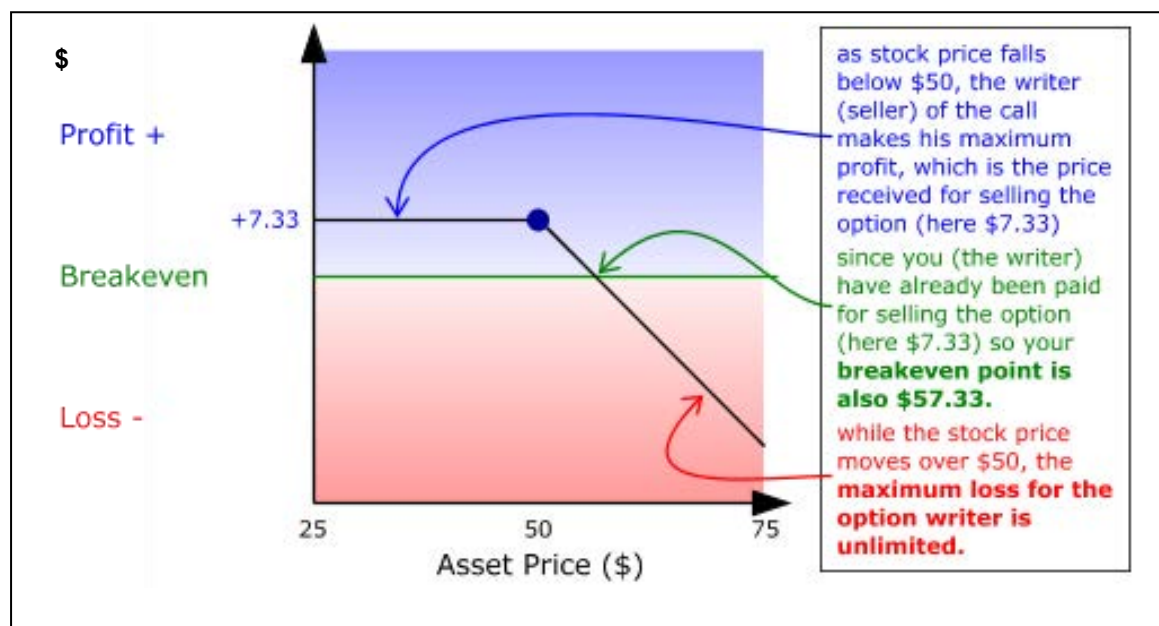
Stock Price	\$56.00
Call Premium	7.33
Exercise Price	50.00
Time to Expiration	2 months

Tip

We can buy and sell calls and puts.

Whereas going "long" means buying something, **shorting** is where we sell something we don't yet own. So we can **short** options, just as we can short stocks, futures or any other asset.

The seller of an option is also known as the **writer** of the option. Selling an option is also known as **writing** an option.



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

Selling (Naked) Imposes the Obligation

- Selling a call **obliges** you to deliver the underlying asset to the option buyer.
- Selling options naked (ie when you have not bought a position in the underlying instrument or an option to hedge against it) will give you an unlimited risk profile. The continuous downward diagonal line is generally a bad sign because it means **unlimited** potential risk.

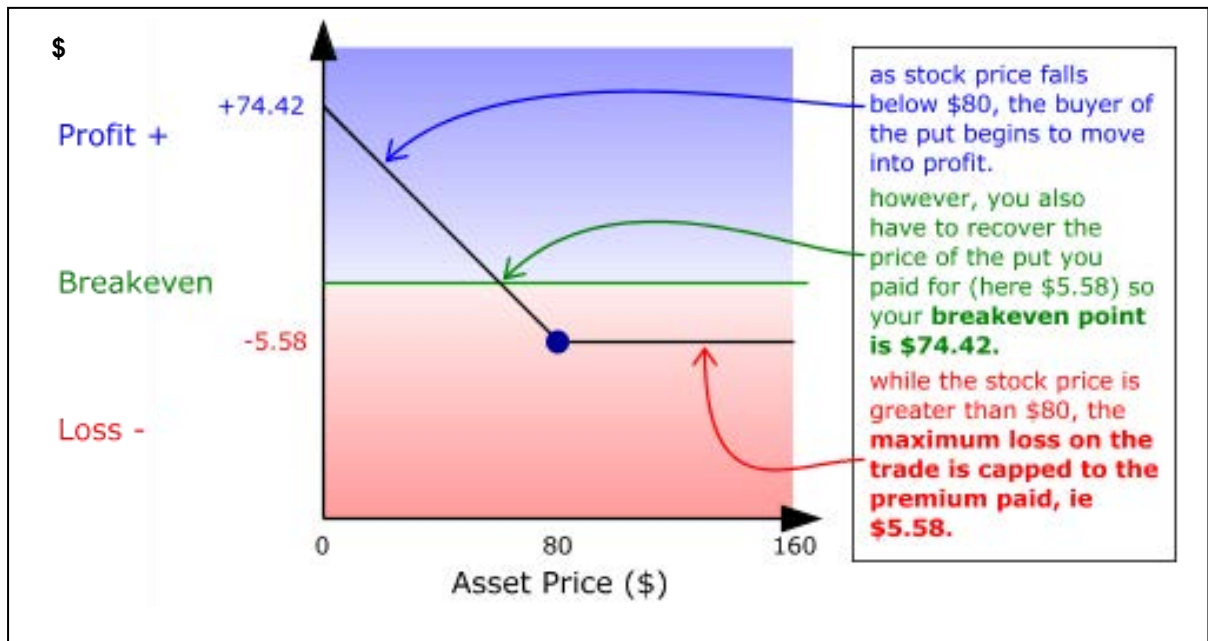
- Combined with the fact that you are **obliged** to do something, this is not an ideal strategy for the inexperienced, however it can be combined with other positions to create a new strategy with less risk and good prospects for reward.

1.5.3 Long Put

Now we know what long and short calls look like, let's look at the risk profile of a long 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, again, let's have a look at an example:

Stock Price \$77.00
Call Premium 5.58
Strike Price 80.00
Time to Expiration 3 months



Remember that:

Buying Gives You the Right

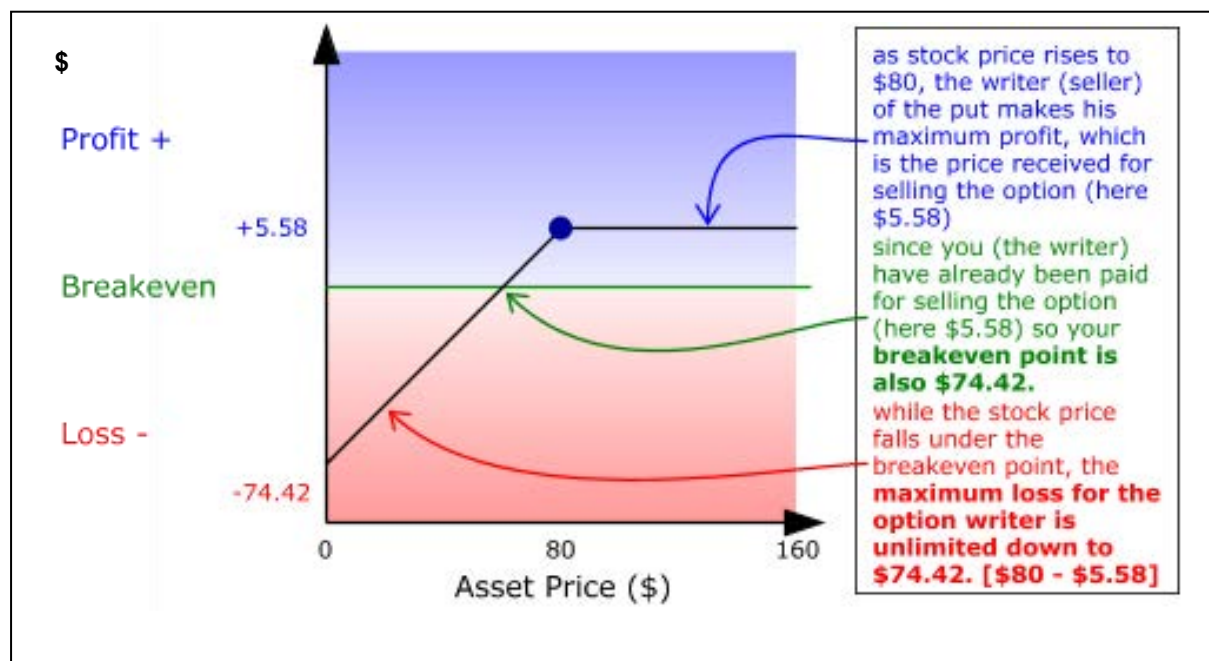
- Buying a put gives you the **right**, not the obligation, to sell an underlying instrument (eg a share).
- When you buy a put you are **not** obligated to sell the underlying instrument - you simply have the right to do so at the Strike Price.

- Your maximum risk, when you buy an option, is simply the price you paid for it.
- Your maximum reward is uncapped. With long puts your reward is uncapped to the downside, ie the strike price less the put premium. In this example that is: $80.00 - 5.58 = 74.42$.

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

1.5.4 Short Put

Stock Price \$77.00
Call Premium 5.58
Strike Price 80.00
Time to Expiration 3 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 **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 (ie when you have not bought a position in the underlying instrument or an option to hedge against it) will give you an unlimited risk profile. The continuous downward diagonal line is generally a bad sign because it means uncapped risk.
- Combined with the fact that you are **obliged** to do something, this is not an ideal strategy for the inexperienced.

1.5.5 Risk Profile Summary

We've learned what the basic risk profiles look like now, and what they mean in terms of risk and reward.

Profile	Description	Max Risk	Max Reward	Breakeven
	buy stock	purchase price	uncapped	purchase price
	short asset	uncapped	short sale price	short sale price
	buy call	call premium	uncapped	strike + premium
	sell call	uncapped	premium received	strike + premium
	buy put	put premium	strike - premium	strike - premium
	sell put	strike - premium	premium received	strike - premium

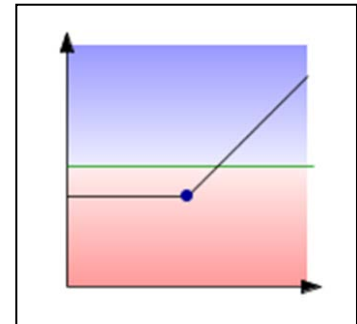
These are the profiles you need to remember in order to construct other strategies in the future. If you can understand everything by logic that's great, but many traders, even professionals, find the pictures to be an invaluable part of the learning process.

The Four Basic Option Risk Profiles

Buying a Call

- belief that stock will rise (bullish outlook)
- risk limited to premium paid
- unlimited maximum reward

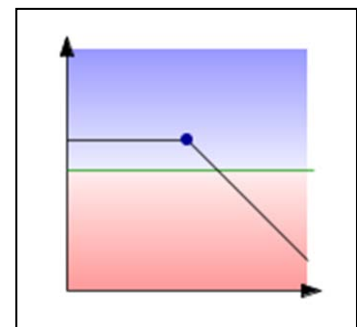
Long Call



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

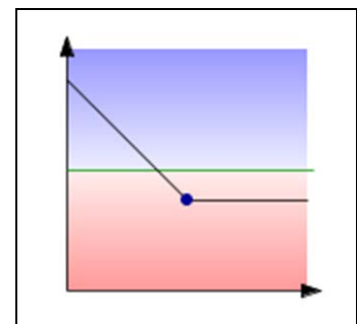
Short Call



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

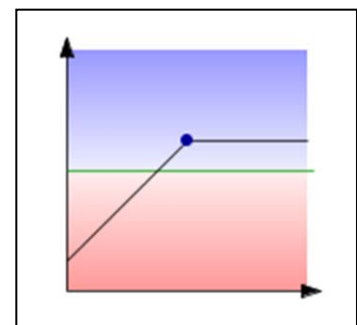
Long Put



Writing a Put

- belief that stock will rise (bullish outlook)
- risk unlimited down to the Strike Price less the premium received
- maximum reward limited to the premium received
- can be combined with another position to limit the risk

Short Put



1.6 Market Practicalities

1.6.1 Reading Option Prices

When you start trading options you'll see several rows and columns of letters and figures that you'll need to understand first.

Stock Price Details

Stock	Last	Change	Bid	Ask	High	Low	Volume
ACME	28.200	-0.400	28.190 -	28.220	28.520	28.000	123,156

Stock Stock ticker symbol.

Last Last price transacted.

Change Change for the day.

Bid 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.

Ask 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".

High The highest price the stock has traded for the day.

Low The lowest price the stock has traded for the day.

Volume The amount of contracts traded during the day so far.

Option Price Details

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

- 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

Typical layout for an option chain

Apple Inc. (AAPL) - NasdaqGS							
614.32 ↑8.06(1.33%) 4:00PM EDT After Hours: 614.79 ↑0.47 (0.08%) 5:48PM EDT							
Options							
View By Expiration: Jul 12 Aug 12 Sep 12 Oct 12 Jan 13 Apr 13 Jan 14							
Call Options				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	47.60	↑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

For the major stocks there can be hundreds of individual options 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:

Underlying asset	The stock to which the options are referring.
Expiration date	The date at which a particular option expires.
Strike price	The price at which the buyer of the option can exercise their rights over that option (to buy with a call, or to sell with a put)
Option symbol	Each option has its own unique symbol which references the underlying stock, whether the option is a call or put, the strike price and expiration date.
Last	Last price transacted (here the quote was delayed by 15-minutes).
Change	Change in option premium since yesterday's close.
Bid	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.
Ask	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'.
Volume	The amount of contracts traded during the day so far.
Open interest	The number of contracts currently open in the market.

Options Symbols Explained

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.:

AAPL160115C00130000

The constituent parts of the symbol are as follows:

	Expiration year	Expiration month	Expiration day	Call/put	Strike price
AAPL	16	01	15	C	00130000
Apple Inc	2016	January	15 th	Call	130

So this is an Apple January 2016 call that expires on the third Friday—the 15th of January. The equivalent put option would be identical, except the “C” would be replaced by a “P” as shown in the following:

AAPL160115P00130000

1.6.2 Option Contracts

Options are traded in **contracts**, not as individual derivative units. Each contract represents a certain number of units of the underlying asset. This number is different for different types of asset worldwide.

Therefore, when you see a US Equity call option price of, say, 1.45, you will have to pay $\$1.45 * 100$ for just 1 contract. One contract is the minimum amount you can trade and for US Equity Options one contract represents 100 individual shares.

The following table outlines the amount of underlying securities that represent one contract for a few different markets where options are traded on an exchange:

Underlying Asset	Units per Options Contract
US Equities	100 shares
UK Equities	1,000 shares
S&P Futures	1 future – worth \$250 each

Continuing with US stock options, 1 contract represents the right over 100 individual shares of stock. This is crucial to understand when considering strategies that combine stocks and options to create a new risk profile. For every contract you buy or sell, you're controlling 100 individual shares. To avoid doubt, all examples are of US stock options.

As of 2013, certain large cap stocks can be traded in smaller blocks of 10, known as mini options contracts. For the purpose of this course, we'll keep our focus on the standard contract size.

Example

Consider the situation of selling one call option. How many shares do you need to buy in order to 'cover' the position?

The answer is 100. Because for every contract you sell, you're selling the right for a counterparty to buy 100 shares of the underlying stock. If you don't already own that stock, then you are open to uncapped risk. If you do own the shares already, then the strategy is known as a 'Covered Call' or 'Buy-Write'.

Remember, you are only 'covered' if you are trading the same number of units on each leg of the trade.

If you want to sell three contracts of ACME 30.00 strike calls at 1.50, you will receive a premium (before commissions) of \$450. But you will need to buy 300 ACME shares in order to be 'covered'. This will be at a cost of $300 * \text{the ACME share price}$.

1.6.3 Margin

Margin is the mechanism by which you can borrow funds from your broker account but are required to cover your potential risk liability with liquid assets in your account. This is particularly relevant to those traders who sell short, sell naked or trade net credit spreads.

When you sell short, sell naked or trade a net credit spread, whilst money is deposited into your account, there is still (in most cases) a contingent liability risk which must be covered by sufficient funds in your account.

These funds can be represented either in cash or ‘marginable securities’. A marginable security is defined as an asset which is deemed by the brokerage to be secure enough to stand as collateral against your risk on the trade. A stock like MSFT may well be considered as a marginable security, whilst low-priced stocks (under \$10) with little trading history, low trading volumes, poor liquidity and high volatility may not be considered as acceptable collateral.

Remember that in many cases of selling short and selling naked, your potential risk liability may be unlimited (or at least substantial). Using the **Strategy Analyzers** to determine your risk profile will help you to identify those situations where your risk potential is unacceptably high, depending on your own personal appetite for risk.

1.6.4 Expiration

Figures courtesy of CBOE (www.cboe.com)

In recent years weekly options have gained some attention. However, monthly options are still the most liquid and with the tighter bid/ask spreads, so for our purposes we’ll focus on the monthlies. Monthly US Equity, Index and Treasury / Interest Rate options expire on the third Friday in the exercise month.

Many people believe that 90% of options expire worthless (ie no Intrinsic Value at expiration). Figures from the CBOE indicate that in fact only 30% of actively traded options expire worthless in each monthly cycle.

Only 10% of options are *exercised* during each monthly cycle. Usually this happens in the final week before the expiration date. (CBOE)

Over 60% of all options positions are closed out in the market before expiration. In other words, option buyers sell to close their positions and option writers (sellers) buy back to close their positions. (CBOE)

1.6.5 Exercise and Assignment

In the past, US stock option strike prices generally started at \$5.00 and then went in \$2.50 increments. Once they hit \$25.00, they would go in \$5 increments; at \$200 they would go in \$10.00 increments. Anomalies would occur where there have been stock splits and company mergers.

More recently this convention has changed with the more actively traded stocks with more actively traded options. With near-the-money strikes and front month options, you'll increasingly see strikes in increments of \$1.00.

Exercising Calls Means you buy the underlying stock at the strike price

Exercising Puts Means you sell the underlying stock at the strike price

The process for exercising your options is as follows:

1. Notify your broker.
2. Your broker notifies the Options Clearing Corporation (OCC).
3. The OCC randomly chooses a brokerage firm with the appropriate short options in the same class and series.
4. The brokerage firm randomly calls one of its customers with the relevant short options position and delivers an **Assignment Notice** informing them that the option owner has exercised their right to buy (call) or sell (put).
5. The stock transaction is processed.

1.6.6 Orders In the Market

Trades can be placed either online or offline, depending on your broker account. Most now will place their orders online.

If placing the order by phone, knowing what to say and how to say it clearly, concisely and correctly you will help save both your time, the broker's time and ensure that there are no misunderstandings.

Make sure you fill in the right figures and have them in writing before picking up the phone to place your order. Then simply read out the order to the broker with your limit order prices. Always prepare what you're going to say beforehand. This will help both you and your broker who, in any case, is required to read back to you the order you have just placed.

Because options prices are not always ‘clean’, it is preferable to place limit orders, particularly on spreads. This will ensure that you will be filled at your specified price or not at all. Typically you should aim to get inside the bid/ask spread.

So if the bid is 4.30 and the ask is 4.50, a market order to buy would default to the ask. To get a better price you would specify a more favourable price of say 4.40 or 4.45.

A. Types of Order

(i) Market Order

Where you authorise your broker to buy or sell stock or options at the best price in the market.

(ii) Limit Order

This is where you:

- only buy if the share falls to a certain price or lower; or
- only sell if the share rises to 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 favour, so it’s better to specify your prices as described earlier in this section.

(iii) Stop Loss / Sell Stop (Defensive)

This is where you:

- Sell if stock falls below a certain price.

The Sell Stop is placed below the current price.

You can increase the stop loss if the share rises.

(iv) Buy Stops

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

- **Buy Stop with Limit**

Only buy when stock is between two prices.

- **Buy Stop with Limit and Stop Loss**

Buy between two prices and sell if below another price.

B. Time Limits with Trade Orders

- **Good till Cancelled (GTC)**

This is where the order is valid unless and until you cancel it or until it is filled. For example, a limit order GTC means you authorise your broker to buy the stock at a particular price or lower, today or any time in the future 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 will be 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.

- **Week Only**

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

- **Fill or Kill**

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, then you need to make it realistic!

- **All or None**

Either the entire order is filled or none of it. This is not generally a good idea since 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 get filled, don't go for All or None!

Always have a STOP in mind whenever you make a trade

It is imperative that you know how and 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 because the order can be seen in the market. This is 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 happens. You can set a mental stop, which is a stop that you decide upon but don't place, so the market makers cannot see it and artificially manipulate the price to take advantage of you.

Where you place your stops is quite personal but should be structured. I advocate the use of 'dynamic trailing stops' where you shadow the stock price with diagonal and horizontal steps as new highs and lows form new supports and resistances. With up-trending prices you shadow the lows on the way up, and with down-trending prices you shadow the highs on the way down.

When trading options, you should base your stops on what is happening with the **stock price**, not the option prices unless you're trading specific option spreads like straddles (where more than one leg is involved).

Whipsaws

A whipsaw occurs when a price changes direction twice or more in very quick succession. In day-trading terms, this can literally happen in a couple of ticks.

Whilst I do advocate the use of stops to control 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 may initially rise, then within a few ticks or 5-minute bars, it may 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 may later recover to, say \$55.00. This type of action is particularly relevant to intraday-traders. Personally, I don't recommend day-trading options unless you are very experienced and have the high online connection speeds and brokerage account facilities to execute trades in a few seconds maximum. Speed is a vital prerequisite if you are day-trading options, and don't let anyone tell you otherwise.

Trading Common Sense

Remember, the most important things you need to know about any trade you ever do are:

- Your maximum **risk** on the trade.

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

OptionEasy's analyzers give you these crucial figures in both nominal and actual formats for over 60 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 know in your own mind (and preferably commit to paper) before you start trading. There are wide parameters concerning money-management techniques and much depends on your own appetite and respect for risk.

1.7 Leverage

With options, the concept of leverage concerns both the ability to control a large amount of assets with a comparatively small investment, and also the scope for large (positive or negative) returns arising from options resulting from relatively small fluctuations in the underlying asset.

Example → Leverage with Options

OEZ has a stock price of \$25.00

You decide to buy a call option with a 30.00 strike price

The call option costs you 1.50

Remember an option has two parts to its value:

- Time Value
- Intrinsic Value

In this example, until the stock price of OEZ rises beyond \$30.00, there will be no intrinsic value because the exercise price is 30.00.

So even if OEZ stock rises up to \$30.00, then there is no intrinsic value until it goes above that level.

For this example, let's assume that there is no change to the time value element

So if OEZ stock price now rises to \$35.00, what is the intrinsic value of the call option?

Answer: $35.00 - 30.00 = 5.00$

Therefore, in most cases, the value of the call must be **AT LEAST** \$5.00

Conclusion:

OEZ stock price has moved from \$25.00 to \$35.00 – this is an increase of 40%

The call premium has moved from 1.50 to 5.00 – this is an increase of 333%

This is the concept of leverage. The stock only moved 40% for the option to move by over eight times that amount.

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

If OEZ stock price moves back to \$25.00 from \$35.00, this is a decrease of around 30%.

The call premium may move from 5.00 back down to 1.50 – a far larger percentage decrease. It is these potential decreases that we need to be protected against.

1.8 Q&As

In this section, we've introduced the benefits of adding options to your trading arsenal. The next section is Technical Analysis, which is how to read and interpret price charts. Technical Analysis is crucial because it gives us *context* for the timing, entry and exit of trades. Before moving onto the next section, make sure you're ready by answering the following questions...correctly!

1	_____ are contracts which convey to the buyer the right, not the obligation, to buy or sell an asset at a specified price before a predetermined date for the consideration of a premium.	
A	Futures	
B	Stocks	
C	Options	
D	Derivatives	
E	All the above	

2	The _____ is also known as the price of an option.	
A	exercise price	
B	strike price	
C	expiration	
D	premium	
E	stock price	

3	The _____ is the price at which the underlying asset can be bought or sold when a call or put option is exercised.	
A	strike price	
B	earnings	
C	expiration	
D	premium	
E	stock price	

4	The strike price is also known as the _____.	
A	PEG Ratio	
B	Earnings	
C	Exercise Price	
D	Premium	
E	Expiration	

5	An option can no longer be exercised after its _____.	
A	Earnings Report Date	
B	Exercise Date	
C	Annual General Meeting	
D	Dividend Payment Date	
E	Expiration Date	

6	In the US, one stock option contract represents how many shares of a stock?	
A	1,000	
B	100	
C	250	
D	500	
E	200	

7	Buying an option gives you the _____ to buy or sell an asset at a specified price before a predetermined date for the consideration of a premium.	
A	obligation	
B	ability	
C	right, not the obligation	
D	obligation, not right	
E	None of the above	

8	Selling an option gives you the _____ to buy or sell an asset at a specified price before a predetermined date for the receipt of a premium.	
A	obligation	
B	ability	
C	right, not the obligation	
D	All the above	
E	None of the above	

9	A call option is in-the-money (ITM) when_____.	
A	there is more than one month to the expiration date	
B	the stock price is greater than the strike price	
C	the strike price is greater than the stock price	
D	The stock price is equal to the strike price	
E	None of the above	

10	A call option is out-of-the-money (OTM) when_____.	
A	there is less than one month to the expiration date	
B	the stock price is greater than the strike price	
C	the strike price is greater than the stock price	
D	The stock price is equal to the strike price	
E	None of the above	

11	A call option is at-the-money (ATM) when_____.	
A	there is less than one month to the expiration date	
B	the stock price is greater than the strike price	
C	the strike price is greater than the stock price	
D	The stock price is equal to the strike price	
E	None of the above	

12	A put option is in-the-money (ITM) when_____.	
A	there is more than one month to the expiration date	
B	the stock price is greater than the strike price	
C	the strike price is greater than the stock price	
D	The stock price is equal to the strike price	
E	None of the above	

13	A put option is out-of-the-money (OTM) when_____.	
A	there is less than one month to the expiration date	
B	the stock price is greater than the strike price	
C	the strike price is greater than the stock price	
D	The stock price is equal to the strike price	
E	None of the above	

14	A put option is at-the-money (ATM) when_____.	
A	there is less than one month to the expiration date	
B	the stock price is greater than the strike price	
C	the strike price is greater than the stock price	
D	the stock price is equal to the strike price	
E	none of the above	

15	What types of value can options contain?	
A	American and European	
B	call and put	
C	Time	
D	Intrinsic	
E	c and d	

16	A call option with one month to expiration is priced at \$3.55. If the strike price is \$50.00 and the stock price is \$51.45, then what is the Time Value?	
A	\$2.10	
B	\$1.45	
C	\$3.55	
D	\$5.00	
E	\$0.00	

17	A call option with one month to expiration is priced at \$3.55. If the strike price is \$50.00 and the stock price is \$51.45, then what is the Intrinsic Value?	
A	\$2.10	
B	\$1.45	
C	\$3.55	
D	\$5.00	
E	\$0.00	

18	A call option with seven weeks to expiration is priced at \$8.43. If the strike price is \$110.00 and the stock price is \$108.75, then what is the Time Value?	
A	\$1.25	
B	\$8.75	
C	\$9.68	
D	\$8.43	
E	\$0.00	

19	A call option with seven weeks to expiration is priced at \$8.43. If the strike price is \$110.00 and the stock price is \$108.75, then what is the Intrinsic Value?	
A	\$1.25	
B	\$8.75	
C	\$9.68	
D	\$8.43	
E	\$0.00	

20	A put option with one month to expiration is priced at \$5.55. If the strike price is \$50.00 and the stock price is \$51.45, then what is the Time Value?	
A	\$4.45	
B	\$1.45	
C	\$6.90	
D	\$0.00	
E	\$5.55	

21	A put option with one month to expiration is priced at \$5.55. If the strike price is \$50.00 and the stock price is \$51.45, then what is the Intrinsic Value?	
A	\$4.45	
B	\$1.45	
C	\$6.90	
D	\$0.00	
E	\$5.55	

22	A put option with seven weeks to expiration is priced at \$8.43. If the strike price is \$100.00 and the stock price is \$97.56, then what is the Time Value?	
A	\$10.87	
B	\$5.99	
C	\$2.44	
D	\$0.00	
E	\$8.43	

23	A put option with seven weeks to expiration is priced at \$8.43. If the strike price is \$100.00 and the stock price is \$97.56, then what is the Time Value?	
A	\$10.87	
B	\$5.99	
C	\$2.44	
D	\$0.00	
E	\$8.43	

24	Which of these factors affect the pricing of options premiums?	
A	time to expiration	
B	type of option	
C	volatility	
D	a and c only	
E	a, b and c	

25	At expiration, an option's value is _____	
A	the premium originally paid for it	
B	par	
C	its intrinsic value	
D	its time value	
E	None of the above	

Chapter 2 – Chart Setups

I have distilled my chart setups to just the ones that have a statistically proven record of performance and are easy to identify.

This chapter is not intended to be a comprehensive description of technical analysis (I've done that in my main published books and in my websites). Rather this is just a summary of my favoured setups.

There are two macro setups I'm looking for:

- ✓ Trends
- ✓ Reversals

Within these two setups are the individual chart patterns and my OVI indicator. It's far more common to use the OVI with trending setups rather than reversals.

2.1 Popular Chart Patterns

For our purposes, we will concentrate on the following chart patterns, which are eminently tradable:

- ✓ Support & resistance
- ✓ Trends
- ✓ Head & shoulders
- ✓ Bowl
- ✓ Flags
- ✓ Cup & handle
- ✓ Volume
- ✓ Doji reversals and railroad tracks

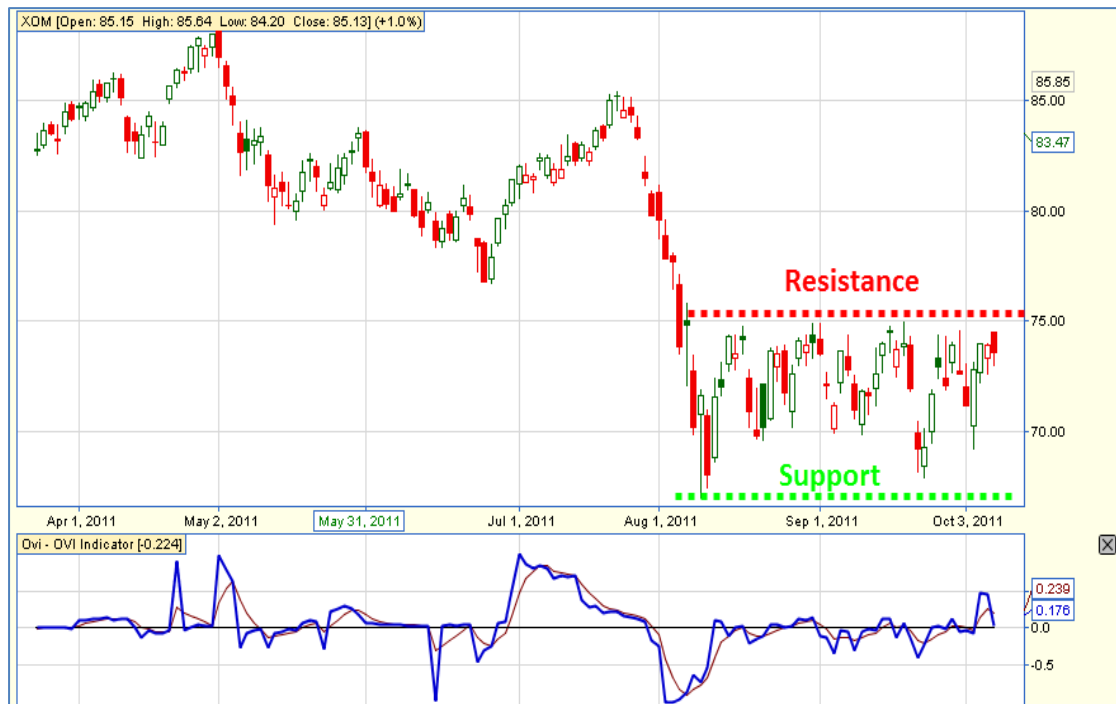
2.1.1 Support and Resistance

Most traders and investors regularly refer to support and resistance. 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 off which it bounces upwards
- Resistance is where the price finds a ceiling off which it bounces downwards

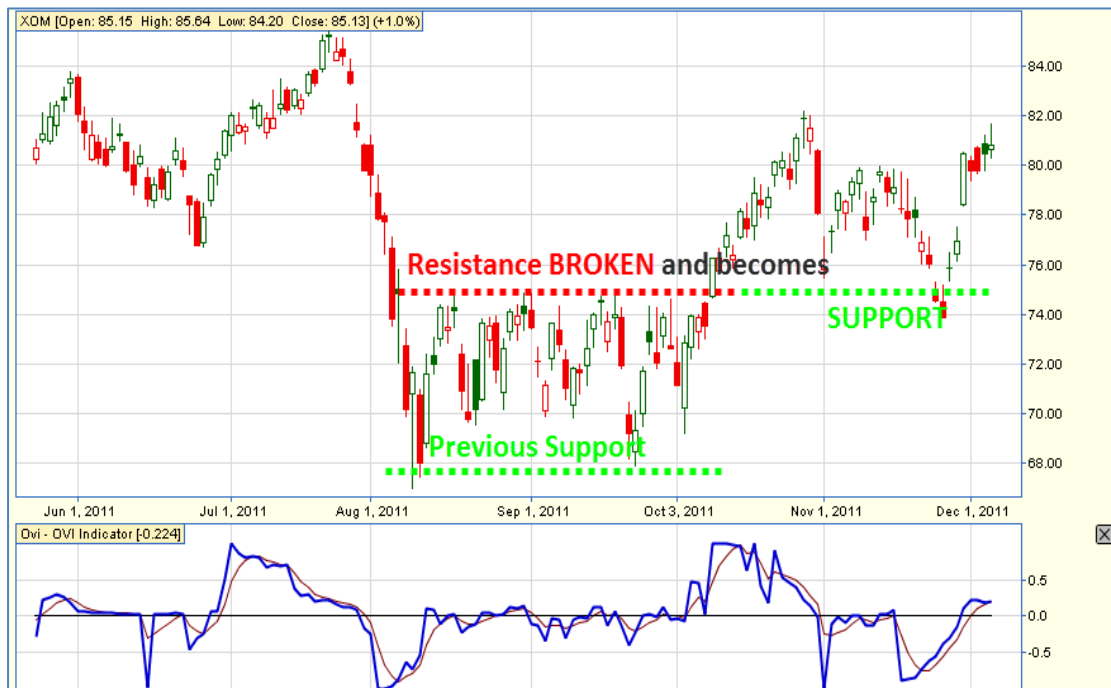
Often what happens is that when support and resistance lines are broken, they then form the opposite of what they were before, ie old support becomes new resistance and old resistance becomes new support.

Chart 2.01 → Support and Resistance



Source: OVI Charts. Courtesy of FlagTrader.com.

Chart 2.02 → Resistance Broken



Source: OVI Charts. Courtesy of FlagTrader.com.

2.1.2 Trends

The easiest way to identify a trend is if you can draw a trendline.

With an uptrend, the easiest way to trade is if you wait for the trendline to be hit and the price bar to bounce upwards off it, continuing the trend with increasing volume.

With a downtrend, the easiest way to trade is if you wait for the trendline to be hit and the price bar to bounce downwards off it, continuing the trend with increasing volume.

A break of the trendline, particularly with rising volume, may signify the end of that trend.

Chart 2.03a → Uptrend Line



Source: OVI Charts. Courtesy of FlagTrader.com.

Chart 2.03b → Downtrend Line

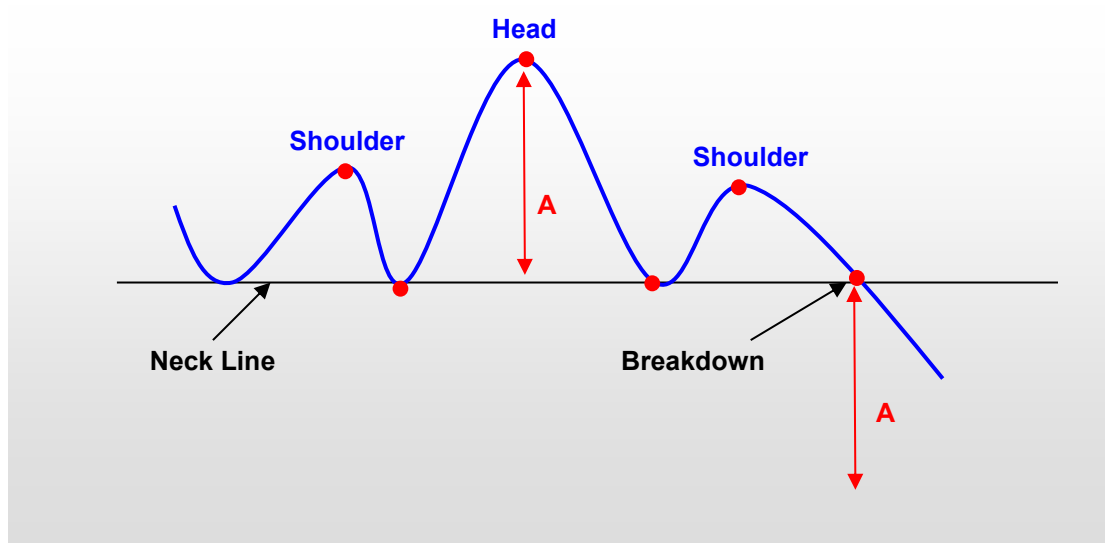


Source: OVI Charts. Courtesy of FlagTrader.com.

Be aware that you can have trends within trends. These mini trends are known as retracements. Notice from the above charts that MNST has a number of downward retracements which are formed as part of its overall (longer-term) uptrend; and X has a number of upward retracements as part of its overall (longer-term) downtrend.

Chart patterns do not have to be mutually exclusive. It is quite possible to find a daily downtrend in the context of a monthly uptrend. You must always look at multiple time frames in order to have a true perspective of what's happening to a stock price, and where historical support and resistance areas may be hidden.

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

Head and Shoulders Summary	
What the pattern means	Possible weakness in the stock if it breaks the support line (neckline)
What to do	<ul style="list-style-type: none"> ➤ Sell on breakdown; and ➤ Consider buying puts and/or selling the stock short.
How to identify the pattern	From the neckline a pattern develops as shown above. First shoulder, head, second shoulder, followed by breakdown below the neckline.
What is the cause?	<ul style="list-style-type: none"> ➤ A breakdown below the support line (neckline) of the stock. ➤ One of the most identifiable of the major reversal patterns, but often only spotted after the actual event.

Chart 2.04: → Head & Shoulders

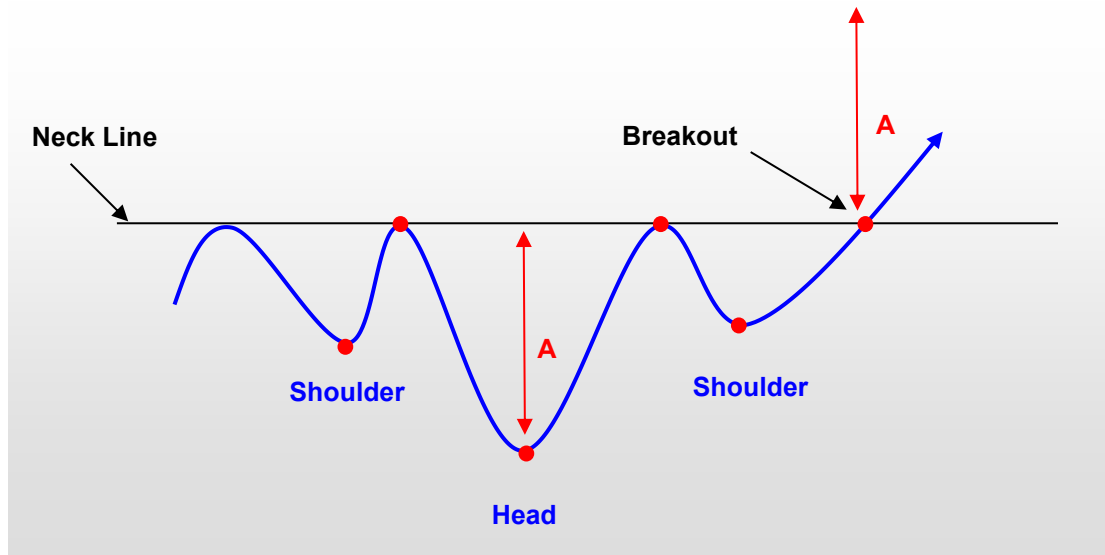


Source: OVI Charts. Courtesy of FlagTrader.com.

The GS example is typically untidy as is normally the way with chart setups. You cannot expect perfectly formed patterns to occur and you should practice identifying patterns like this.

Technical analysts would expect the resulting down move to match the distance between the top of the head and the neckline, as denoted by “A” on the above chart.

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 is telling us that the (stock) price has enough buyers interested to demonstrate the strength to rise through the preceding lows. Imminent appreciation in the price is likely by at least the amount of distance (A) between the neckline and the middle (reverse head) low.

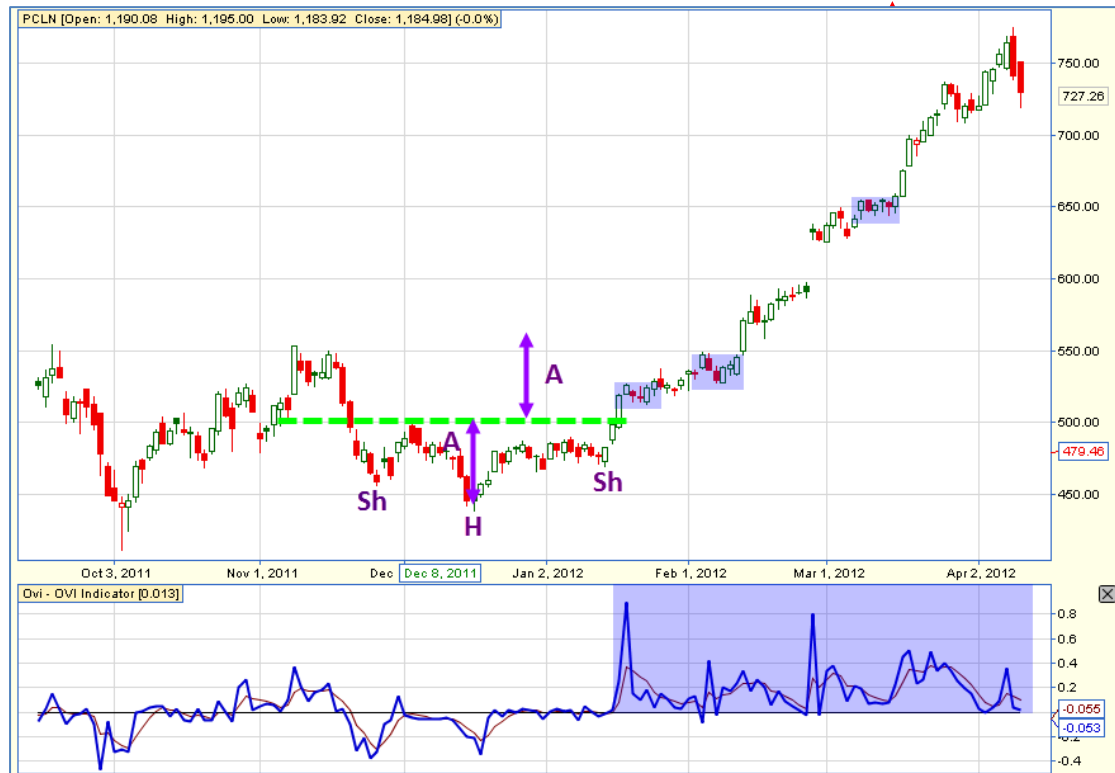
Chart 2.05: → Reverse Head & Shoulders



Source: OVI Charts. Courtesy of FlagTrader.com.

Here, PCLN is making a Reverse Head & Shoulders pattern where I could have drawn the neckline in a downward diagonal slope. I've actually drawn it horizontally so I could use \$500+ as my breakout area.

Chart 2.06: ➔ Reverse Head & Shoulders Upward Resolution



Source: OVI Charts. Courtesy of FlagTrader.com.

Notice how the price made little bull flags in January, February and March after breaking out from the neckline. Also notice how my OVI line (underneath) became persistently positive, heralding the strength of the subsequent move up.

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 above. First reverse shoulder, head, second shoulder, followed by breakout above the neckline
What is the cause?	<ul style="list-style-type: none"> ➤ A breakout above the support line (neckline) of the stock ➤ One of the most identifiable of the major reversal patterns

2.1.4 Bowl / Cup

A bowl is a (relatively) long period of price consolidation, roughly resembling an upward curving saucer pattern.

This is interpreted as basing action and is perceived as being bullish.

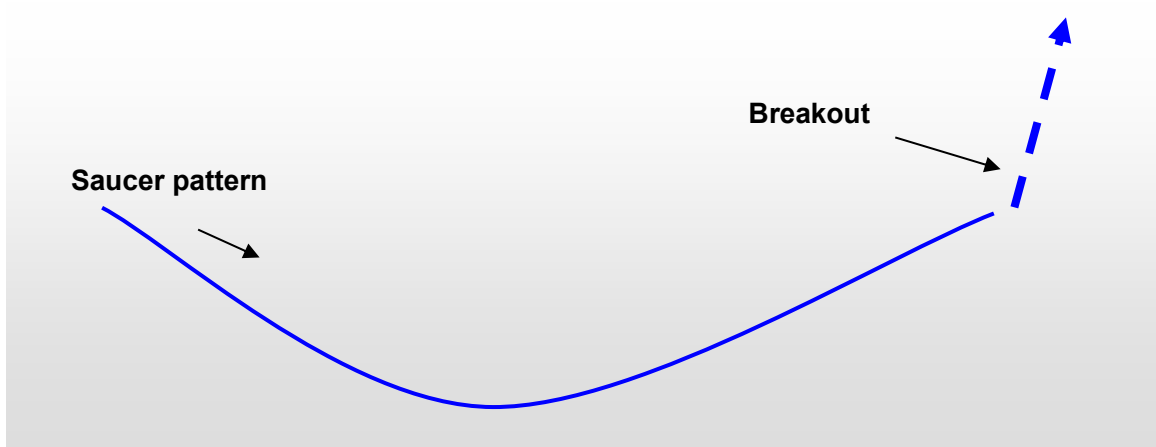
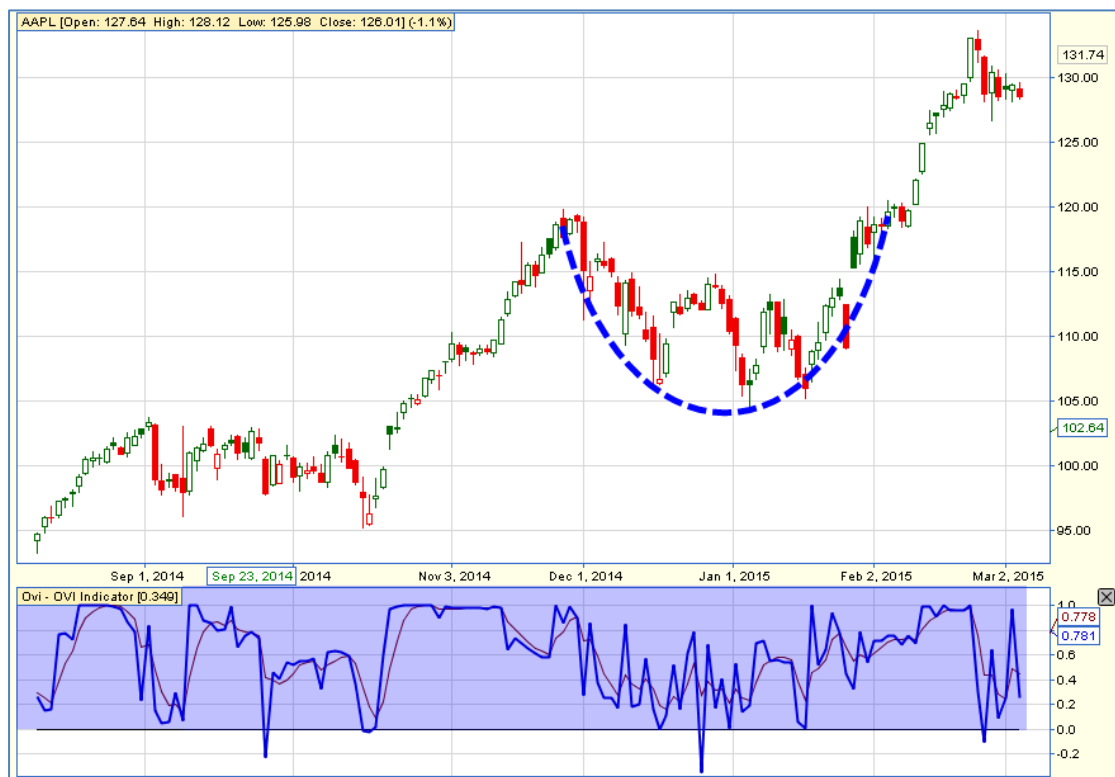


Chart 2.07: → Bowl



Source: OVI Charts. Courtesy of FlagTrader.com.

In the above chart, AAPL forms a two-month bowl pattern that resolves to the upside. My OVI line underneath was persistently positive as the pattern was forming, which gave us confidence to trade when the price had climbed back up to the lip at around \$120. More about the OVI later.

Bowl / Cup Summary	
What the patterns mean	Possible strength building up in the stock.
What to do	Consider bullish strategies.
How to identify the pattern	A bowl-like pattern as above.
What is the cause?	A prolonged period of consolidation. One of the more reliable of the major patterns.

2.1.5 Consolidation Patterns – Pennants, Triangles, Flags and Wedges

Consolidations occur where the individual price spreads become tighter on each bar, indicating that buyers and sellers are matching each other more closely. This is a sign of lower price volatility. This volatility behaviour will have an impact on options prices, which in turn may influence your selection of options strategy.

While many technicians differentiate between the different types of consolidation patterns, such as pennants, triangles, flags and wedges, there is no statistical evidence to complicate matters like that. So I bundle them all into the same family and treat them the same.

Ultimately I'm looking at these consolidations with reference to the dominant trend and the persistent direction of my OVI indicator. Specifically I'm looking for:

- ✓ Dominant uptrend with flag pattern and persistently positive OVI
- ✓ Dominant downtrend with flag pattern and persistently negative OVI

Flags

A flag is a pause during a clearly identifiable trend. Typically during the consolidation the price bars contract and become smaller as buyers and sellers wait for the breakout.

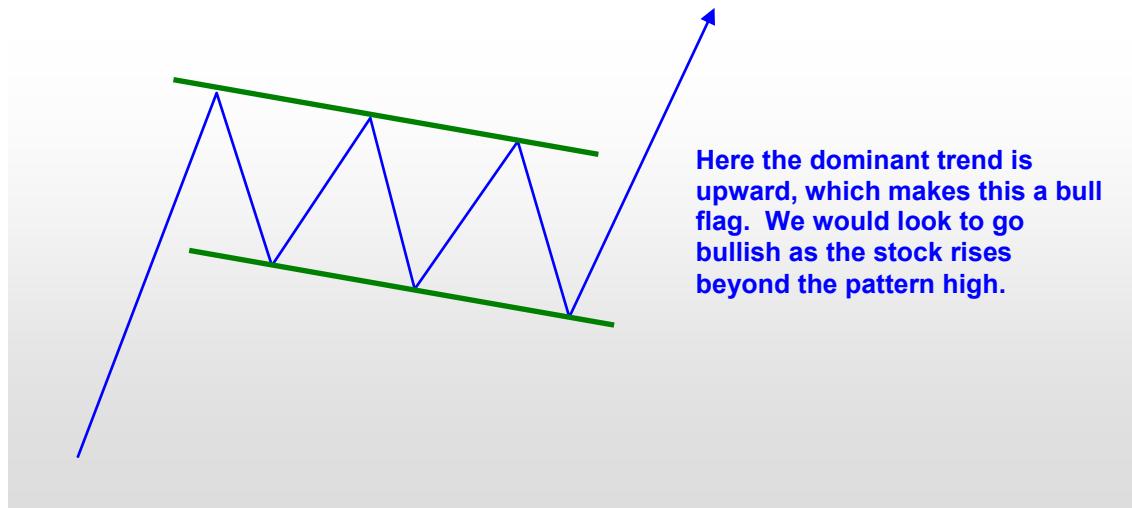
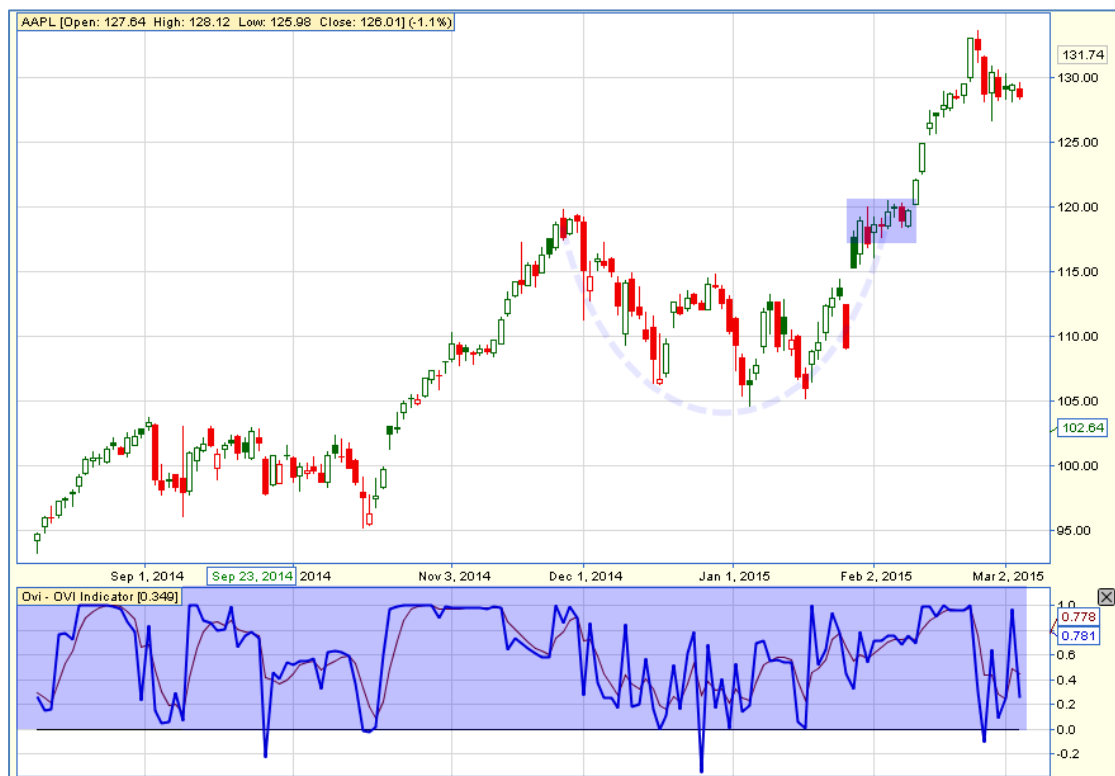


Chart 2.08: → Bull Flag



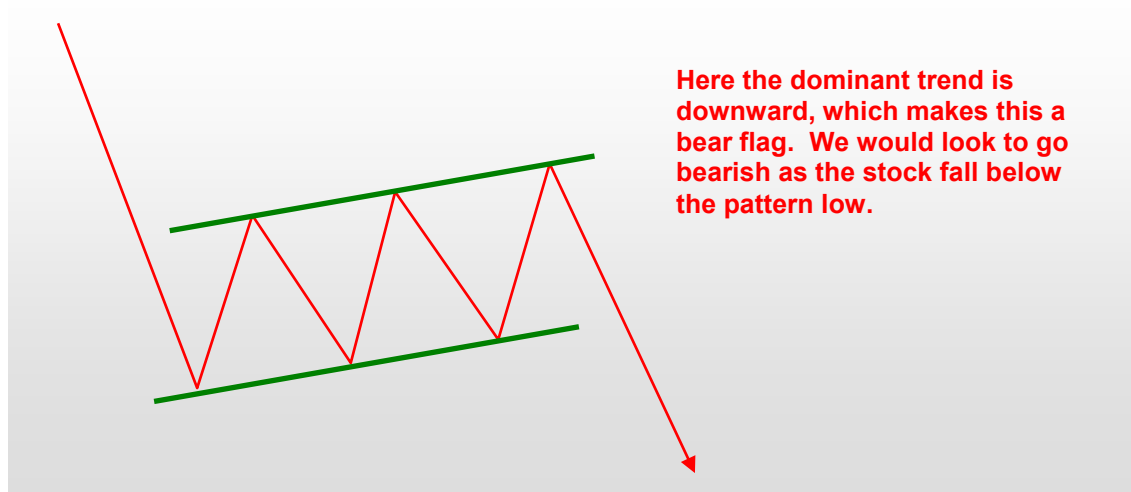
Source: OVI Charts. Courtesy of FlagTrader.com.

During the consolidation period, it's desirable that volume contracts a little, indicating that prices are simply drifting without conviction before the next move in the direction of the prevailing trend.

By the way... the above chart should have looked familiar to you ... because it's the same one I displayed for the bowl pattern! Here a bull flag formed directly after the bowl. Two bullish patterns for the price of one, and the OVI persistently positive as well.

Bear Flags

Bear flags are the precise opposite of bull flags.



2.1.6 Cup & Handle

One of the most sought after chart patterns, a cup & handle is a bowl and bull flag combined.

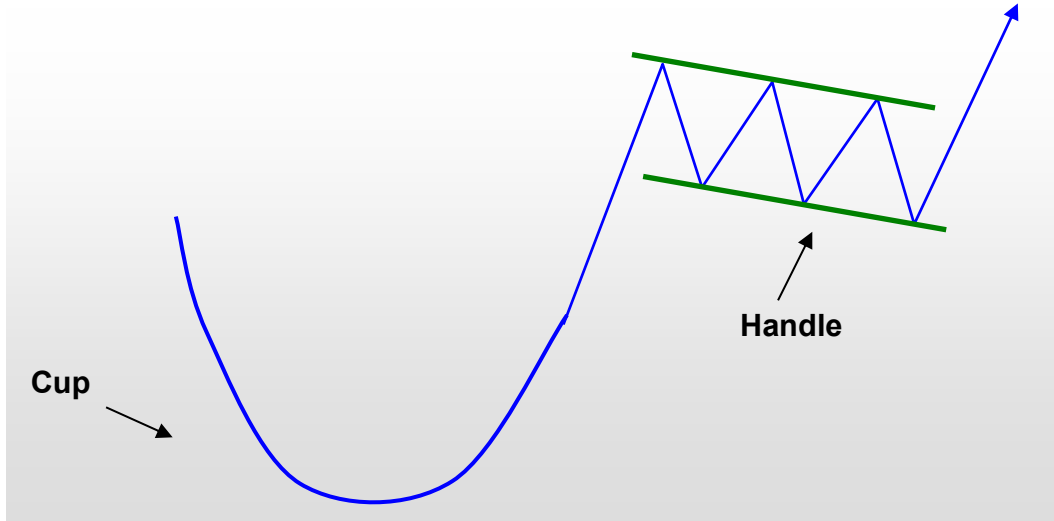


Chart 2.09: → Cup & Handle



Source: OVI Charts. Courtesy of FlagTrader.com.

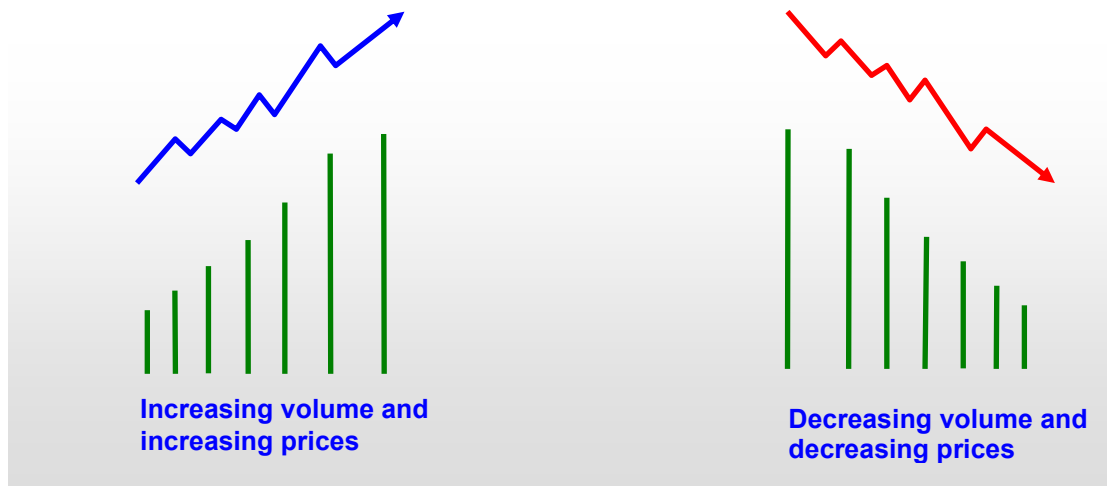
Here is a perfect Cup & handle, with top of the handle just above the first lip of the cup. Again you may notice the chart is familiar, because it's the same one I used to describe the bowl pattern and the bull flag pattern.

Put a bowl and bull flag together you get a cup and handle setup, which is one of the most sought-after setups. Again, here there is the added bonus of a persistently positive OVI. It doesn't get a lot better than that!

2.1.7 Volume

Volume tells us if there is conviction behind a move or not. If prices rise, but there's no volume behind it, that tells us that prices are rising without any real buying pressure, therefore the move is suspect. Similarly, if prices are falling with little volume, we cannot be convinced that the price action is a result of selling pressure.

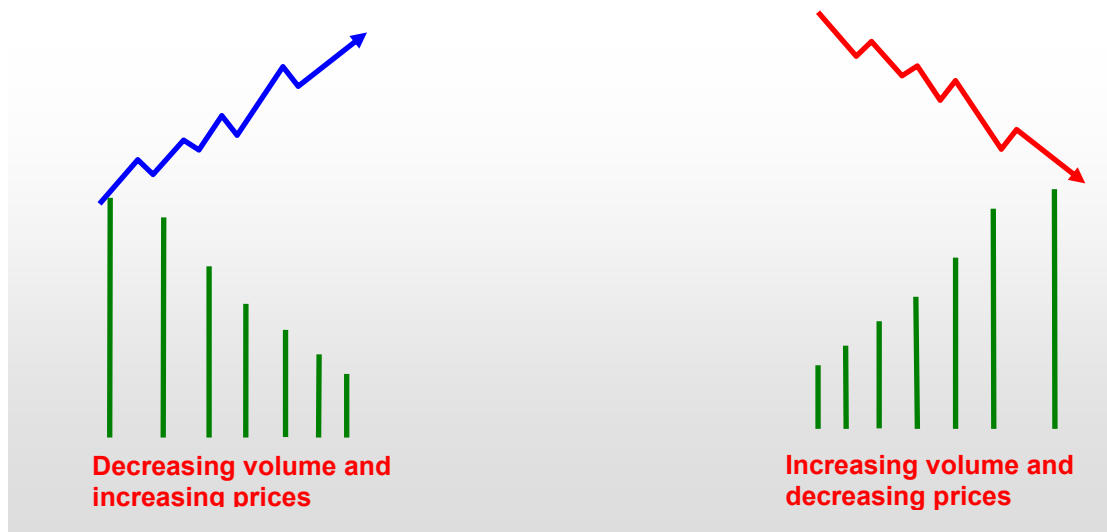
If volume and price move together (up or down), this is a bullish signal.



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

If the price is rising but with decreasing 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.

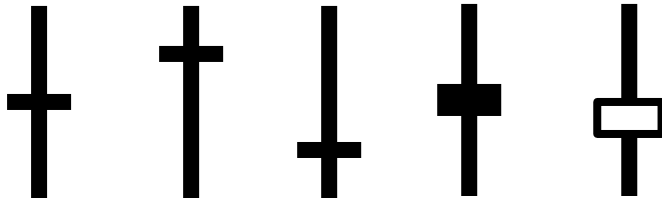


2.1.8 Dojis and Railroad Tracks

Doji Reversals

A Doji bar is where the open and the close are at similar levels.

Examples of Doji bars:

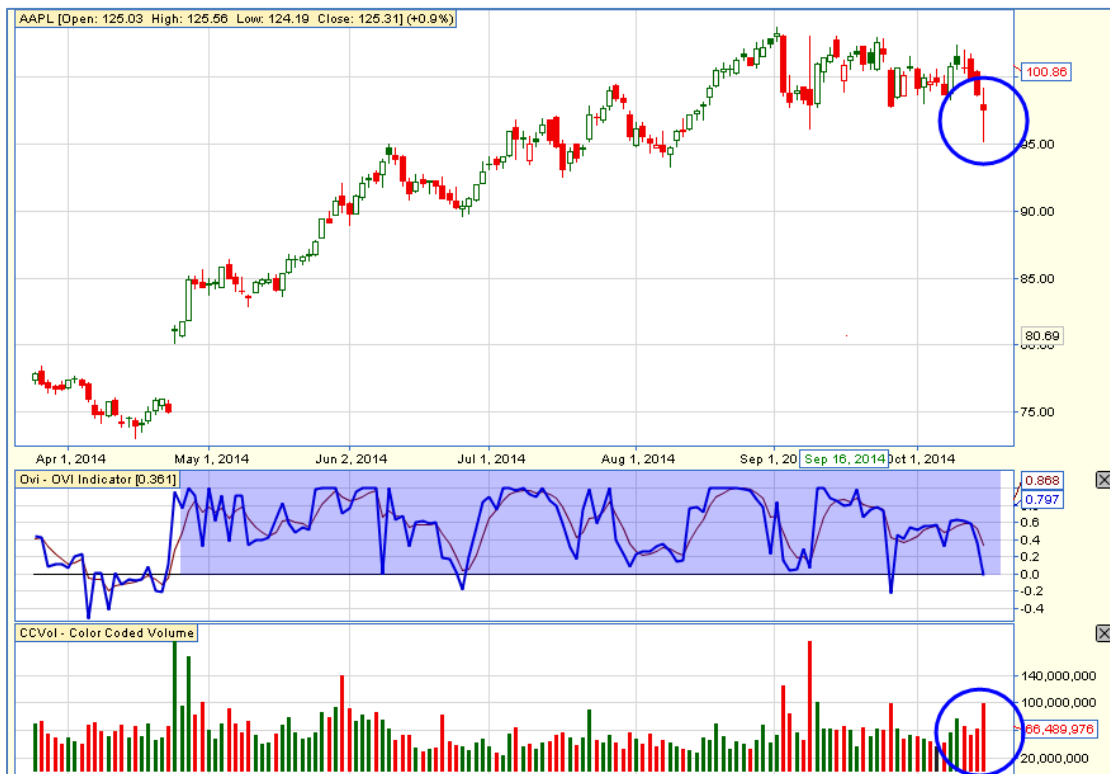


A Doji is thought to represent uncertainty in the markets and, which could herald a change in market direction – the reversal we are looking for. So the Doji is one of the signals we look for to herald a possible reversal or turnaround.

Specifically we look for Dojis that are forming 20-day extremes in price, and where the bar itself is longer than the average of several preceding bars.

When a Doji is forming a 20-day low, then we would expect the reversal to be upwards, and vice versa.

Chart 2.10: → Doji Setup for AAPL (2014)



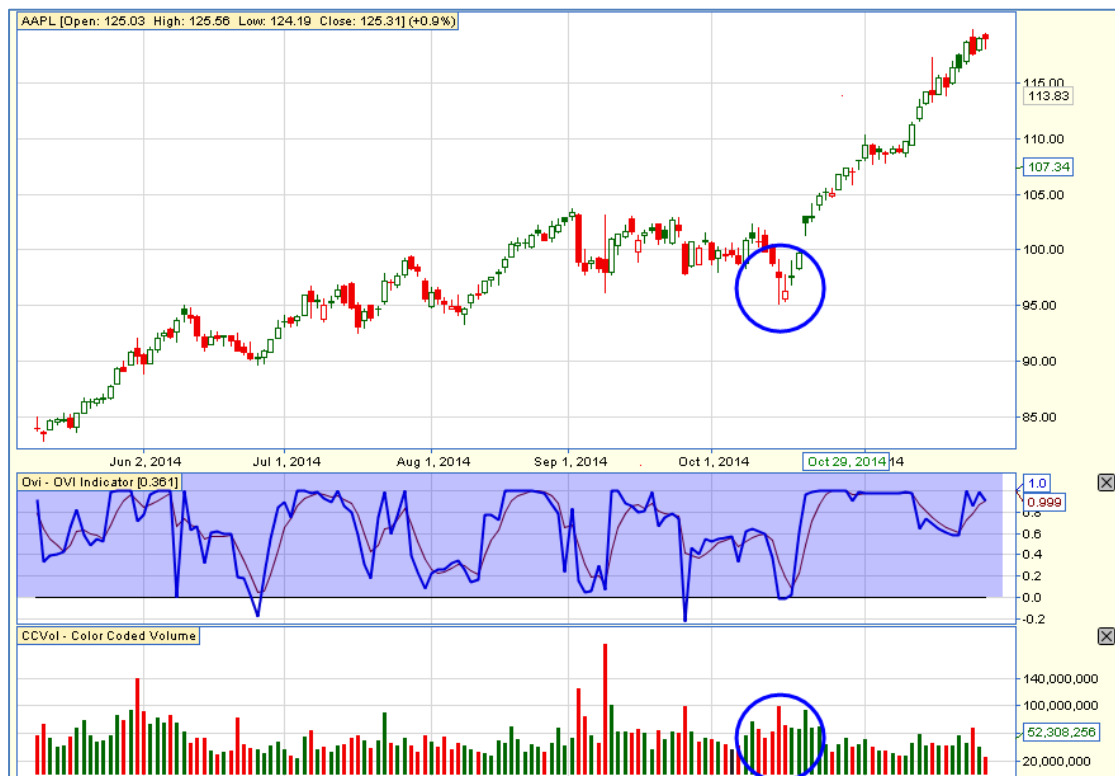
Source: OVI Charts. Courtesy of FlagTrader.com.

The above chart for AAPL contains a Doji low which is a longer bar than the preceding bars. Furthermore, my OVI indicator has been persistently positive in the months prior to the setup, and we have a volume spike as well.

Normally we don't look to combine the OVI with a reversal setup, but this was simply too good to ignore.

Typically we'd seek to enter long just above the high of the Doji bar. If the stock price doesn't move up beyond that level our trade will not be triggered.

Chart 2.11: → Doji Reversal for AAPL (2014)



Source: OVI Charts. Courtesy of FlagTrader.com.

The result from this setup was a huge move which started just two days later. Importantly there was significant clustering happening at this time where other major stocks and the main indices had formed similar patterns. This gives more weight to the pattern and increases the odds of a reversal.

Railroad Tracks

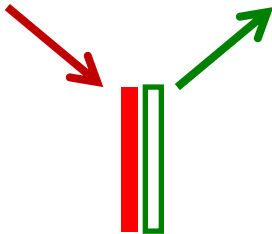
The Railroad Tracks setup is my favourite reversal setup. It is much rarer than a simple Doji setup but it has superior performance and reliability. I have also perfected how to find it!

A railroad tracks pattern is effectively a type of Doji that forms over two days, not one.

The pattern forms at a clear extreme in price, preferably several weeks or months, but 20-days at a minimum. Where the pattern occurs at a price extreme is known as being 'in the country'.

Railroad Track Low:

Forming at a new extreme low in price, the first bar opens near its high and closes near its low. The second bar opens near its (and the first bar's) low and closes near the first bar high. This is effectively a 2-day 'hammer' bar.



Railroad Track High:

Forming at a new extreme high in price, the first bar opens near its low and closes near its high. The second bar opens near its (and the first bar's) high and closes near the first bar low. This is effectively a 2-day 'shooting star' bar.

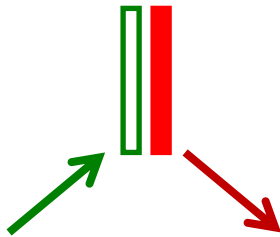


Chart 2.12: → Railroad Track High Setup for SNDK (2014)

Here SNDK exhibits a near perfect railroad track extreme high setup.



Source: OVI Charts. Courtesy of FlagTrader.com.

The result is a fantastic 15% reversal in just three weeks:

Chart 2.13: → Railroad Track High Reversal for SNDK (2014)



Source: OVI Charts. Courtesy of FlagTrader.com.

2.2 The OVI

The OVI is a proprietary stock indicator that is derived from options transaction data.

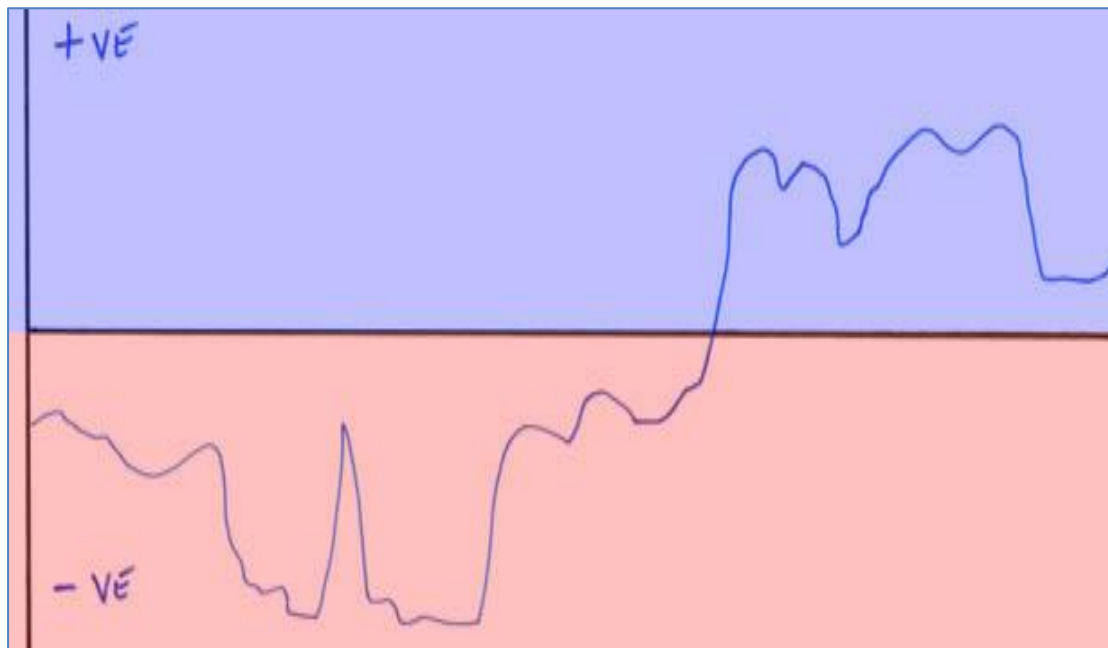
For my guided discretionary trading I use the OVI mainly in conjunction with trend breakout chart setups. As you saw above with AAPL, Once in a while a glorious setup will manifest with the OVI persistently in the direction of the intended reversal, but this is strictly a bonus when it occurs.

The OVI condenses entire options chains down to a single line that has a maximum of +1 and a minimum of -1.

When the line is persistently positive, this is indicative of institutional bullish position building.

When the line is persistently negative, this is indicative of institutional bearish position building.

The OVI



The OVI is unique to me; and has been proven by independent hedge fund analysts on its own for automated trading.

The hypothesis is that in-the-know traders will want to leverage their superior information in the options market. The OVI often captures this before the main move is made.

For example, with PCYC, the stock gapped up after earnings in January 2015, whereupon the OVI confirmed its persistent positive status while consolidating twice.

Chart 2.14: → Bullish OVI Setup for PCYC (2015)



Source: OVI Charts. Courtesy of FlagTrader.com.

In the next chart you'll see the bullish breakout from this protracted and messy consolidation, but all the while the OVI is persistently positive, giving you the likely direction of breakout.

Chart 2.15: → Bullish OVI Breakout for PCYC (2015)



Source: OVI Charts. Courtesy of FlagTrader.com.

It got even better from here. PCYC became the subject of a takeover bid and the stock price gapped up again.

The question is who knew what? The OVI was persistently positive for some time, suggested persistent bullish sentiment and position building. The OVI is an expression of demand and supply from options transactions. Options are a leveraged instrument and you can be confident by the OVI's behaviour here that there are some big bets being placed on PCYC.

Chart 2.16: → Bullish OVI Breakout for PCYC (2015)



Source: OVI Charts. Courtesy of FlagTrader.com.

2.3 Section Summary

To trade consistently and successfully, you should become familiar with the main chart patterns outlined in this section. One of the keys to trading options successfully is getting the direction of the stock right in the first place. As you become more experienced, you'll inevitably settle on the simple concepts surrounding price and OVI as outlined in this section. There's more detail on my websites such as OptionEasy, FlagTrader and the OVI Traders Club.

2.4 Q&As

In this section, we've looked at the most tradable chart patterns. A tradable pattern is one that you can identify with reasonable clarity, so that you can explicitly understand the rules of entry and exit for that particular chart.

The next section covers some of the more advanced concepts surrounding options, after which we'll start to look at real-life strategies. Technical analysis is crucial because it gives us *context* for the timing, entry and exit of trades. Before moving onto the next section, take some time to answer the following few questions.

1	Technical analysis is the study of _____.	
A	Options	
B	Company fundamentals	
C	The economy	
D	The high-tech sector	
E	Price charts	

2	The easiest way to identify a trend is to _____.	
A	Ask your broker	
B	Do a Fibonacci retracement	
C	Draw a trendline	
D	Draw a triangle	
E	Find a head and shoulders	

3	The OVI is _____.	
A	A bullish indicator	
B	Derived from options transaction data and used to analyze stocks	
C	A bearish indicator	
D	A neutral indicator	
E	Volatile	

4	A bullish OVI signal would be when it is _____.	
A	Persistently positive	
B	Persistently neutral	
C	Persistently negative	
D	Sporadic	
E	Volatile	

5	A bearish OVI signal would be when it is _____.	
A	Volatile	
B	Sporadic	
C	Persistently positive	
D	Persistently negative	
E	Persistently neutral	

6	A powerful combination of OVI and chart setup would be _____.	
A	Persistently positive OVI with bullish trend and bull flag.	
B	Persistently positive OVI with bearish trend and bear flag.	
C	Persistently positive OVI with high Doji bar.	
D	Persistently negative OVI with bullish trend and bull flag.	
E	Sporadic OVI with neutral trend.	

7	A head & shoulders is typically viewed as _____.	
A	Bullish	
B	Bearish	
C	Neutral	
D	Ambiguous	
E	High volatility	

8	What is the likely cause of a head & shoulders?	
A	Lack of conviction in selling pressure to fall through a previous low causes the price to rise	
B	Lots of buying pressure forcing prices higher	
C	Lack of conviction in buying pressure to reach a previous high forces the price back down	
D	Options expiration date	
E	High volatility	

9	A reverse head & shoulders is typically viewed as _____.	
A	Bullish	
B	Bearish	
C	Neutral	
D	Ambiguous	
E	High volatility	

10	What is the likely cause of a reverse head & shoulders?	
A	Lack of conviction in selling pressure to reach a previous low causes the price to rise	
B	Lots of selling pressure forcing prices lower	
C	Lack of conviction in buying pressure to reach a previous high forces the price back down	
D	Options expiration date	
E	High volatility	

11	A bowl is typically viewed as _____.	
A	Bullish	
B	Bearish	
C	Neutral	
D	Ambiguous	
E	High volatility	

12 What is the likely cause of a bowl?	
A	Lack of conviction in selling pressure to reach a previous low causes the price to rise
B	Selling pressure forcing prices lower
C	Lack of conviction in buying pressure to reach a previous high forces the price back down
D	Options expiration date
E	A prolonged period of consolidation leading to possible long-term strength in the stock

13 Which of the following are consolidation patterns?	
A	Flags
B	Pennants
C	Triangles
D	All the above
E	None of the above

14 Which of the following are consolidation patterns?	
A	Double tops
B	Double bottoms
C	Head & shoulders
D	All the above
E	None of the above

15 Which of the following are reversal patterns?	
A	Flags
B	Pennants
C	Cup & handle
D	All the above
E	None of the above

16 Which of the following are reversal patterns?	
A	Double tops
B	Double bottoms
C	Head & shoulders
D	All the above
E	None of the above

17	Which of the following are continuation patterns?	
A	Flags	
B	Pennants	
C	Cup & handle	
D	All the above	
E	None of the above	

18	Which of the following are continuation patterns?	
A	Double tops	
B	Double bottoms	
C	Head & shoulders	
D	All the above	
E	None of the above	

19	Increasing volume and increasing prices is a sign of _____.	
A	Conviction from sellers, showing weakness in the stock and a likely fall in prices	
B	Conviction from buyers, showing strength in the stock and likely further price rises	
C	Lack of buying conviction, leading to a likely fall in prices	
D	Increasing volatility	
E	Decreasing volatility	

20	Increasing volume and decreasing prices is a sign of _____.	
A	Lack of buying conviction, leading to a likely fall in prices	
B	Conviction from buyers, showing strength in the stock and likely further price rises	
C	Conviction from sellers, showing weakness in the stock and a likely further fall in prices	
D	Increasing volatility	
E	Decreasing volatility	

21	Decreasing volume and increasing prices is a sign of _____.	
A	Conviction from sellers, showing weakness in the stock and a likely fall in prices	
B	Conviction from buyers, showing strength in the stock and likely further price rises	
C	Lack of buying conviction, leading to a likely fall in prices	
D	Increasing volatility	
E	Decreasing volatility	

22	Decreasing volume and decreasing prices is a sign of _____.	
A	Conviction from buyers, showing strength in the stock and likely further price rises	
B	Lack of selling conviction, leading to a likely rise in prices	
C	Conviction from sellers, showing weakness in the stock and a likely further fall in prices	
D	Increasing volatility	
E	Decreasing volatility	

23	The OVI applies to _____.	
A	Stock futures	
B	All stocks	
C	Small cap stocks	
D	Optionable stocks only	
E	None of the above	

24	The OVI can be used to identify _____.	
A	Retracements	
B	Head and shoulders	
C	Potential insider activity	
D	Earnings reports	
E	Breakeven points on a risk profile graph	

25	A Cup and Handle is a particularly interesting pattern because _____.	
A	It always goes up	
B	It is a bowl pattern combined with a bull flag pattern, which are both bullish	
C	It always goes down	
D	It always goes sideways	
E	None of the above	

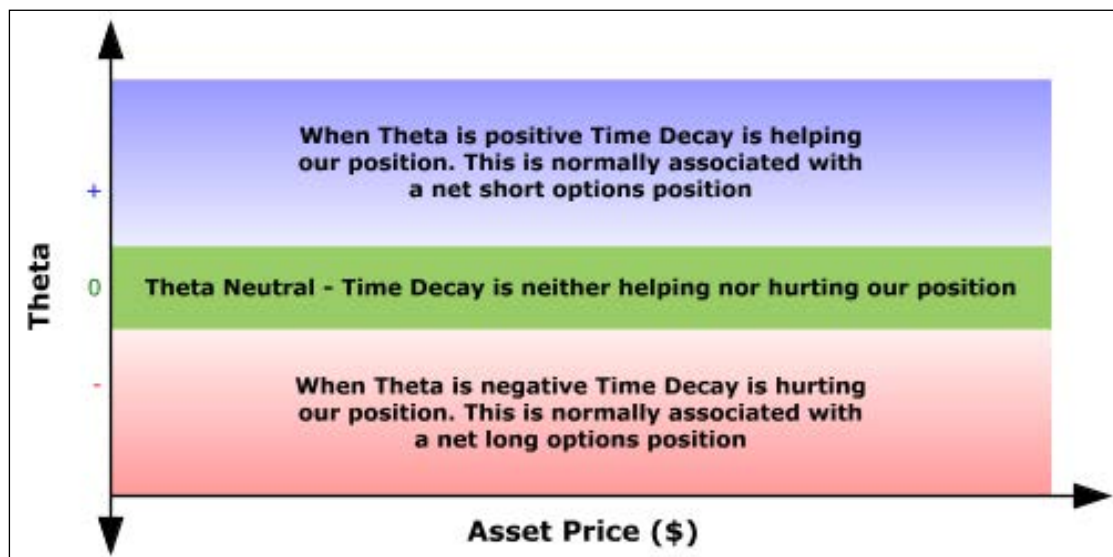
Chapter 3 – Advanced Options Concepts

3.1 Introduction

When we talk about advanced options concepts, we're really talking about the *sensitivity* of options to various factors. These sensitivities are commonly known as the **Greeks**, so called because their names are derived from the Greek language.

Because I explain options with pictures I can make it much easier for you to understand a seemingly complex topic.

For example, later I'll be talking about time decay and volatility. With these two sensitivities you can interpret them through a simple picture, whatever options strategy you're trading:



Here it's clear that where you see Theta (time decay) in the positive territory, it means that time decay is actually helping your position. When theta is in negative territory, it means that time decay is hurting your position.

So, if in doubt just stick to the pictures!

To understand why options have sensitivities to various factors, all we have to do is go back to our original definition of an option:

- The right, not the obligation
- To buy or sell an asset
- At a fixed price
- Before a predetermined date

...and then remind ourselves of 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 distil 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

3.2 The Greeks

Greek		Sensitivity to
Delta	Δ	Change in option price relative to change in underlying asset price (ie Speed)
Gamma	Γ	Change in option delta relative to change in underlying asset price (ie Acceleration)
Theta	Θ	Change in option price relative to change in time left to expiration (ie Time Decay)
Vega	K	Change in option price relative to the change in the asset's volatility (ie Historical Volatility)
Rho	P	Change in option price relative to changes in the Risk Free Interest Rate (ie Interest Rates)

Let's take each Greek in turn:

3.2.1 Delta Δ

Delta measures the sensitivity of an option price relative to a change in the underlying asset price.

In other words, delta measures the *speed* of the option position compared with that of the underlying asset (say, a stock).

$$\text{Delta} = \frac{\text{rate of change in option price}}{\text{rate of change in underlying asset price}}$$

You can think of delta as being the probability of the option expiring in-the-money (ITM). As a general rule, ATM (at-the-money) call options have deltas of 0.5. Therefore, for every \$1.00 the stock moves, the call will move at approximately \$0.5, ie 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 0.5.

Because US 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, $100 * 0.5 = 50$].

A delta of +/- 50 is saying the option has a 50% chance of expiring in-the-money. This makes complete sense because ATM options have a 50% chance of expiring in or out-of-the-money.

- ATM calls have a delta of 0.5
- ATM puts have a delta of -0.5
- 1 share has a delta of 1

Example

Buy 200 shares of ACME +200 deltas

To balance this trade, we would buy 4 ATM puts (-50 deltas each) to create a Delta-Neutral position.

Position	Delta Value (+ or -)	Comment
Buy 100 shares	+100	1 share has a delta of 1
Sell 50 shares	-50	Selling 1 share gives a -1 delta
Buy ATM call	+50	1 contract represents 100 shares. $100 * 0.5 = +50$
Sell ATM call	-50	
Buy call	+	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.
Sell call	-	A short call always has a negative delta
Buy ATM put	-50	1 contract represents 100 shares. $100 * 0.5 = +50$
Sell ATM put	+50	
Buy put	-	A long put always has a negative delta. As the stock price rises, the put premium will fall. As the stock price falls, the put premium will rise. This inverse relationship results in a negative delta.
Sell put	+	Short put always has a positive delta.
Deep ITM call	+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. Where you see numbers higher than this, it's because there must be more than one contract being traded.
Deep OTM call	0	Deep OTM calls will have deltas of almost zero, reflecting that they have very little chance of expiring ITM.
Deep ITM put	-100 (maximum)	One deep ITM put will inversely roughly 1 for 1 against the underlying stock.
Deep OTM put	0	Deep OTM puts will have deltas of almost zero, reflecting that they have very little chance of expiring ITM.

Why is delta important?

Delta is important because it is an indication of the leverage we have in a position. Let's look at an illustration:

We buy a stock for \$100.00. Buying 100 shares costs us \$10,000.

Let's compare this to buying the equivalent in ATM call options: 1 contract at 6.00 will cost you \$600.

Strictly for illustration purposes let's say that the call delta is 0.5, ie for every one point the stock moves, the call option you've bought moves by 0.5 points.

If the stock rises from \$100 to \$110:

- Your shares will increase by \$10.00 per share and you'll make \$1,000 in extra profit, a profit of **10%**.
- Your calls will increase by 5.00 and you'll make \$500 in profit, a profit of **83%**.

If the stock falls from \$100 to \$90:

- Your shares will decrease by \$10.00 per share and you'll lose \$1,000, a loss of **10%**. From the \$10,000 you started with, you now have \$9,000.
- Your options will decrease by 5.00 and you'll lose \$500, a loss of over **80%**. Out of the \$600 you started with, you now only have \$100.

This is a pretty extreme example, but you can now see why we might want to mitigate the leverage of our options position relative to the stock price.

When we buy an option, we should either buy enough time to be right, or enough intrinsic value, even if it costs us a bit more money. We want to ensure that modest swings in the stock price don't result in such wild movements in the options position that we're exposed to unmanageable risk. We do this by buying either more time or by buying deeper ITM options where the time value portion of the option premium is dwarfed by the intrinsic value portion.

3.2.2 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 shows us how quickly the odds are changing of the option expiring in-the-money. By knowing the gamma of an option, we know how quickly the Delta will change and how quickly we should adjust our position in advance of this.

Summary of how gamma behaves:

ATM Gamma tends to be high when the option is near the money. 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 being OTM to ITM or vice versa are high when the option is near the money. Therefore, it is logical that ATM options have high gammas.

ITM When options are deep in-the-money (DITM), delta is close to 1 and in itself is not particularly sensitive to changes in the underlying asset price. Therefore, the Gamma of DITM options is low.

OTM Similarly, Gamma is low for deep out-of-the-money (DOTM) options.

Generally The Gamma for puts and calls is always identical and can be positive or negative.

Stock Price	Delta	Gamma
ATM	Around 0.5	High
Near the Money	Around 0.5	High
Deep ITM	Around 1 (high)	Low
Deep OTM	Low	Low

Gamma Summary

At our level here, we don’t need to worry too much about gamma. Even when you become more advanced at trading the strategies in the next chapter, it doesn’t form a big part of our trading day. Gamma is, however, an important factor in the lives of

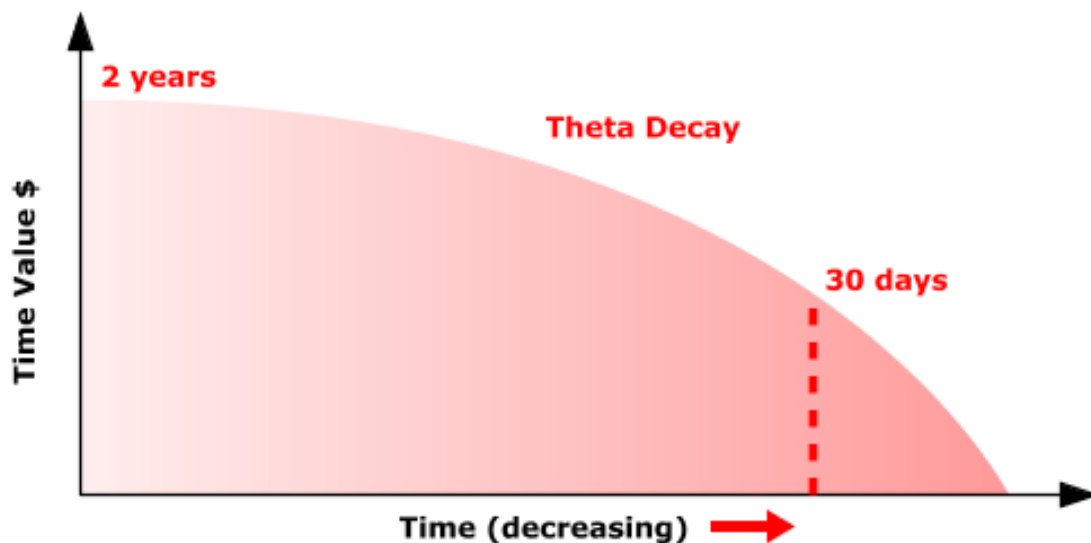
professional options traders and is one of the five main Greeks, which is why we at least cover it.

3.2.3 Theta Θ

Theta is the measure of how Time Decay affects the option premium. We already know that the shorter the time to expiration, the lower the Time Value of an option, therefore the lower the time value portion of the option price will be.

Theta is a very important sensitivity and we certainly need to understand it. Fortunately it's also pretty easy to comprehend! For a start, Theta starts with a "T", which stands for Time Decay. Secondly, we already understand that if an option expires, then the Time Value portion of the premium must diminish as we approach expiration.

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.



Now we know for sure that time decay is our enemy (when we buy options), how do we protect ourselves from it?

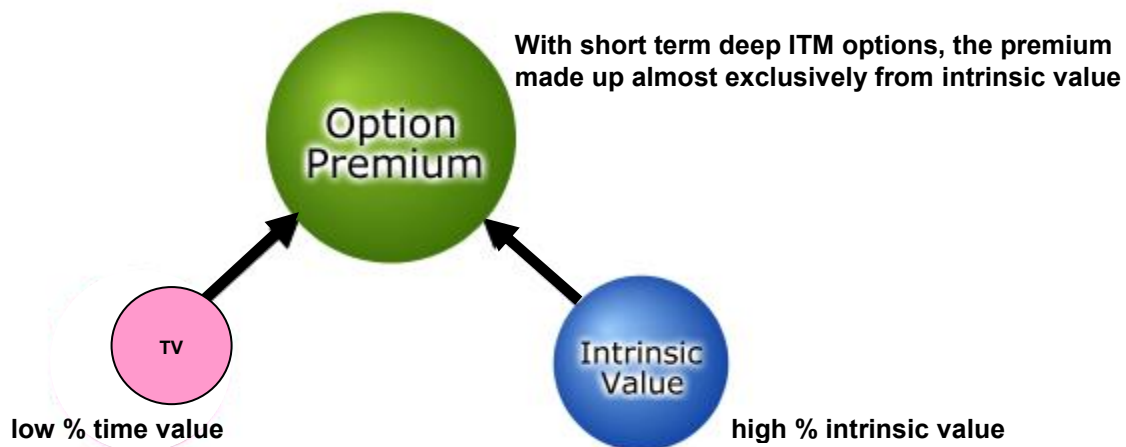
There are three ways to combat time decay (or theta decay as it's also known):

1. Sell off any ATM or OTM options with 30 days left to expiration - do **not** hold those options into the last month. Remember that OTM and ATM options have no intrinsic value, so they must be made up purely of time value. Since we know

that time value decreases exponentially during the final month before expiration, it makes sense **not** to hold onto these options.

2. Sell options you don't already own as an adjustment to existing positions. We don't mean selling naked here. But if you own a stock, or a long term option, then it's ok to sell short term options provided you're covered by the original long position.
3. Buy deep ITM options, which have plenty of intrinsic value and very little time value. If there is only a small proportion of time value, then only a small proportion of the option premium can be subject to time decay.

Remember about time value and intrinsic value. Well, here we're talking about there being so little time value as a proportion of the option premium because the option is so deep ITM.



Theta summary

Theta has a value. Because we know that theta decay is harmful to our option value, it makes sense that when we own an option, the theta value will be negative. Theta is effectively the measure of the impact of each day of time decay on your option position.

If we've bought an option, we know that this figure must be negative because time decay will be eroding the value of the option on a day by day basis. The closer we get to expiration, the more negative the figure will be.

If we've shorted an option, then logic tells us that time decay must be helping us. Here's why:

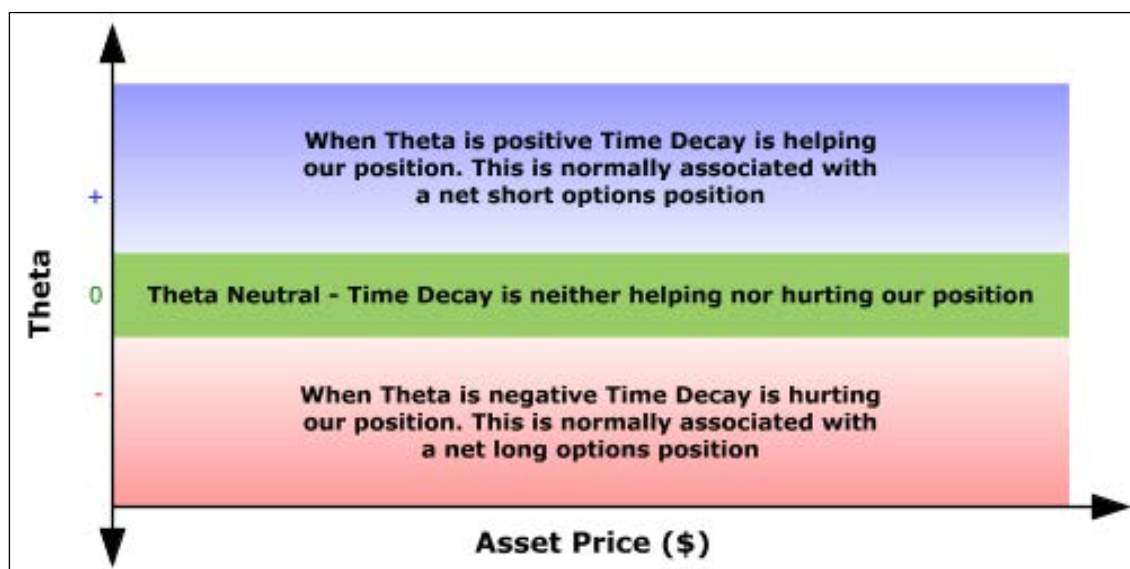
- You sell an OTM option 5 days before expiration for 0.50. Remember, it only has time value; OTM options have no intrinsic value.

- The underlying stock price doesn't move. On the morning of expiration the option is still OTM and the option is worth say 0.10.
- You can now close the trade by buying back the option at only 0.10. Time decay has helped you as the seller of the option.

Let's now see what happened to the buyer of the option:

- They (stupidly!) bought an OTM option with just 5 days to go from you at 0.50.
- The stock price remained the same and on the morning of expiration, the option was now only worth 0.10.
- The buyer decides to close the trade by selling the option for 0.10. Time decay has hurt the buyer of the option.

	Option Buyer	Option Seller
Time Decay	Hurts	Helps



3.2.4 Vega K

When you trade stocks, you must be aware of volatility. Volatility is a measure of how a security's price is moving. Volatility is recognised 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 have a clue what it was going to do next and it would feel risky. If a stock price remains static all the time, 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, then expressed as an annualized percentage figure. Volatility is not directional. If a stock is priced at \$100 and has volatility of 20%, 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. Vega is always positive (for bought options) and is identical for calls and puts.



So far so good, but things get a little trickier now.

There are two types of volatility. Historical volatility refers to the stock's volatility, and implied volatility refers to the option's volatility.

Historical (or Statistical) Volatility	Derived from the standard deviation of the stock price movement over a known period of time
Implied Volatility	Derived from the market price of the option itself

Remember that there are 7 variables that 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

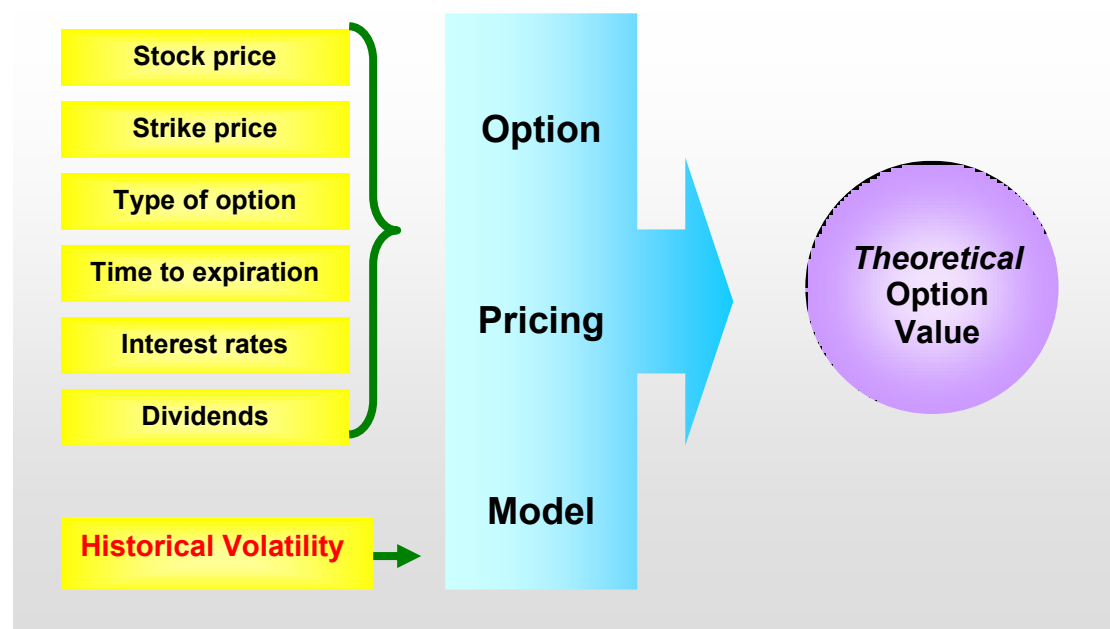
(vii) The final variable can be considered not to be known with certainty and is the *expected volatility* of the stock going forward.

There are several mathematical models for calculating the *theoretical* value of an option. In the main they manipulate the above seven variables to arrive at the correct *theoretical* option price. I stress the word *theoretical* because the theoretical price is

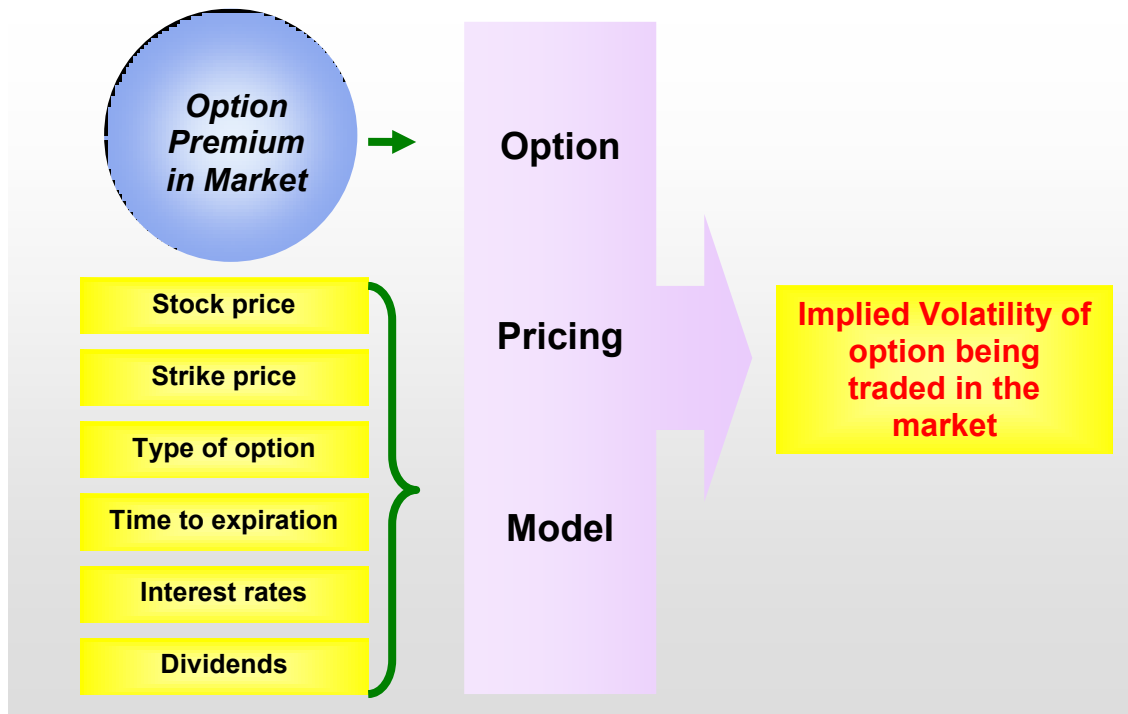
not the market price for the option. Sometimes the figures will be the same, sometimes they'll be different, there's no magic rule.

- The thing to remember is that 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 we come out with a theoretical option price.
- The market price of an option premium has a volatility figure *implied* within it. We reverse the theoretical option price model in order to find out what figure for volatility was *implied*. So, with a real market option where we know what price it is trading at, we mix the 6 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



Implied Volatility calculated from real option prices in the market



This expected volatility figure is expressed as an annualised percentage and, working back from the option premium itself, is an "implied" figure, hence *implied volatility*.

Historical volatility is the annualized standard deviation of *past* price movements of the stock. We 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...
Historical	<ul style="list-style-type: none"> Underlying stock volatility over a period of time, for example the past 20 trading days. Expressed as a % reflecting the average annual standard deviation.
Implied	<ul style="list-style-type: none"> The volatility derived from the option's traded market price using an option pricing model. Expressed as a %.

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.

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 if 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 Summary

Volatility is a vast topic in its own right. Professional traders actually trade volatility (and the other Greeks) in themselves. For our purposes, we need to understand the types of volatility, and what they can mean to our trade.

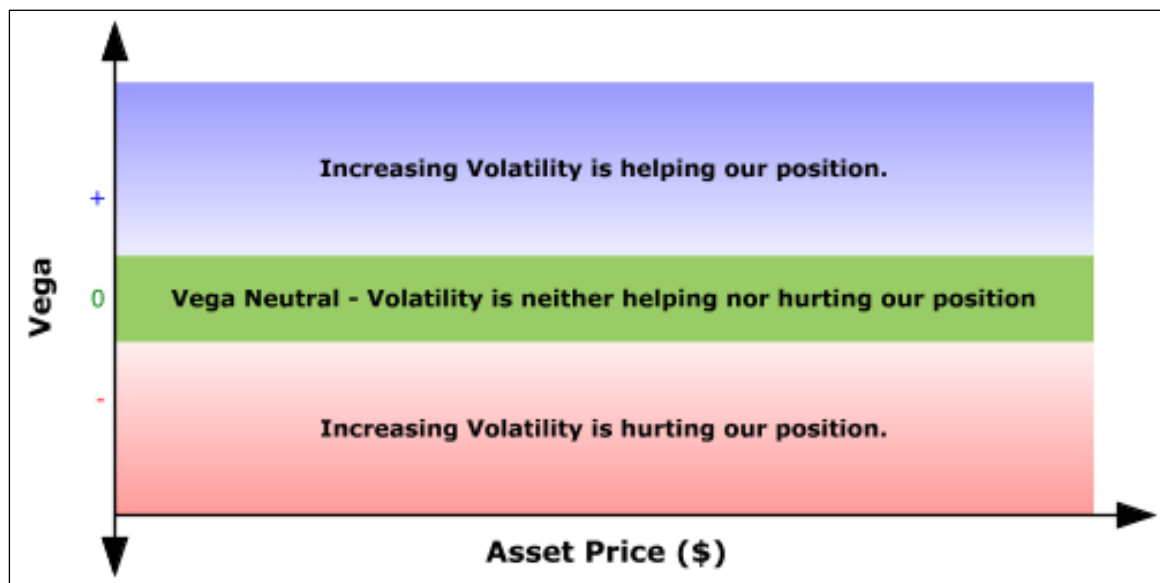
When we buy and sell options to create strategies of more than one leg, we need to compare the implied volatilities of the bought and sold legs to ensure we're not buying too expensive and selling too cheaply. The OptionEasy Analyzer does it all for you so you can see instantly if that's the case. The rule is that buy legs will typically have implied volatilities of about 5% more than sell legs. That's because we buy at the Ask, and we sell at the Bid. The ask is always higher than the bid, so the implied volatility of the ask will always be higher than that of the bid.

A high vega is helpful to a long option position in that high volatility suggests higher option premiums. A low vega is unhelpful to a long option position because it suggests lower option premiums. If we sell an option short, we want low vega in order that the option premium will remain low (in case we have to buy it back).

When we put together multi-legged strategies we buy and sell different vega values, so it's helpful to see the net effect in a visual format. We can summarize vega as follows:

- When vega is positive our option position is being helped
- When vega is negative our option position is being hurt

We can summarize the visual for vega as follows:



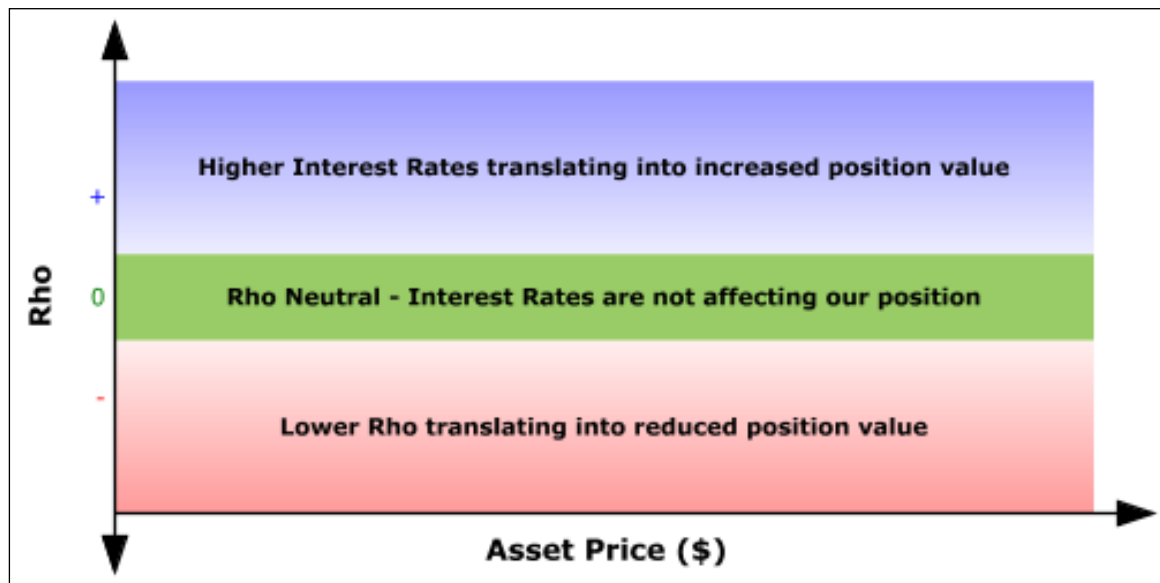
3.2.5 *Rho P*

Rho is the least important of the Greeks and measures the option's sensitivity to a 1% move in interest rates.

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.

Even large changes in interest rates have relatively little effect on options prices, which is why we're not too worried about rho!



3.3 Q&As

This section has contained some of the more advanced concepts surround the options world.

At this stage a basic understanding is all you require, so before we go on to trade real strategies, let's do another quick test just to make sure we're on track.

1	How could one best define the Greeks?	
A	Terms to assess the profitability of companies	
B	Risks of individual trades	
C	Option sensitivities to various risk exposures	
D	Sensitivities of options premiums	
E	None of the above	

2	Delta measures the _____.	
A	change in the option position relative to the change in the underlying asset price	
B	change in the option position relative to a change in interest rates	
C	change in the option position relative to a change in volatility	
D	change in the option position relative to a 1% change in implied volatility	
E	change in the option position relative to a change in its time to expiration	

3	Gamma measures the _____.	
A	change in the option position relative to a 1% change in implied volatility	
B	change in the option position relative to a change in interest rates	
C	change in the option position relative to a change in volatility	
D	change in the option position relative to a change in its time to expiration	
E	change in the delta of an option relative to a change in the price of the underlying asset	

4	Theta measures the _____.	
A	change in the option price relative to a 1% change in implied volatility	
B	change in the option price relative to a change in its time to expiration	
C	change in the option price relative to a change in volatility	
D	change in the option price relative to a change in interest rates	
E	change in the delta of an option relative to a change in the price of the underlying asset	

5	Vega measures the _____.	
A	change in the option price relative to a 1% change in implied volatility	
B	change in the option price relative to a change in its time to expiration	
C	change in the option price relative to a change in interest rates	
D	change in the option price relative to a change in volatility	
E	change in the delta of an option relative to a change in the price of the underlying asset	

6	Rho measures the _____.	
A	change in the option price relative to a 1% change in implied volatility	
B	change in the option price relative to a change in its time to expiration	
C	change in the option price relative to a change in interest rates	
D	change in the option price relative to a change in volatility	
E	change in the delta of an option relative to a change in the price of the underlying asset	

7	What is the effect of Time Decay when you buy or short shares?	
A	Time Decay is helpful	
B	Time Decay is harmful	
C	Time Decay is helpful when the stock price rises and harmful when the stock falls	
D	Time Decay is harmful when the stock price rises and helpful when the stock falls	
E	Time Decay does not affect the strategy	

8	What is the effect of Time Decay when you buy calls?	
A	Time Decay is helpful	
B	Time Decay is harmful	
C	Time Decay is helpful when the stock price rises and harmful when the stock falls	
D	Time Decay is harmful when the stock price rises and helpful when the stock falls	
E	Time Decay does not affect the strategy	

9	What is the effect of Time Decay when you buy puts?	
A	Time Decay is helpful	
B	Time Decay is harmful	
C	Time Decay is helpful when the stock price rises and harmful when the stock falls	
D	Time Decay is harmful when the stock price rises and helpful when the stock falls	
E	Time Decay does not affect the strategy	

10	What is the Delta when you buy a share?	
A	Delta is helpful	
B	Delta is harmful	
C	Delta is zero	
D	Delta is -1	
E	Delta is 1	

11	What is the Delta when you short a share?	
A	Delta is helpful	
B	Delta is harmful	
C	Delta is zero	
D	Delta is -1	
E	Delta is 1	

12	What is the Delta when you buy calls?	
A	Delta is positive	
B	Delta is negative	
C	Delta is positive when the stock price rises and negative when the stock falls	
D	Delta is negative when the stock price rises and positive when the stock falls	
E	Delta is helpful	

13	What is the Delta when you buy puts?	
A	Delta is positive	
B	Delta is negative	
C	Delta is positive when the stock price rises and negative when the stock falls	
D	Delta is negative when the stock price rises and positive when the stock falls	
E	Delta is helpful	

14	What is the Gamma when you buy or short shares?	
A	Gamma is helpful	
B	Gamma is harmful	
C	Gamma is zero	
D	Gamma is -1	
E	Gamma is 1	

15	What is the Gamma when you buy calls?	
A	Gamma is positive	
B	Gamma is negative	
C	Gamma is positive and peaks around the strike price	
D	Gamma is negative and troughs around the strike price	
E	Gamma is helpful	

16	What is the Gamma when you buy puts?	
A	Gamma is positive	
B	Gamma is negative	
C	Gamma is positive and peaks around the strike price	
D	Gamma is negative and troughs around the strike price	
E	Gamma is helpful	

17	What is Vega when you buy or short shares?	
A	Vega is helpful	
B	Vega is harmful	
C	Vega is zero	
D	Vega is -1	
E	Vega is irrelevant to this strategy	

18	What is the effect of increased volatility when you buy calls?	
A	Increased volatility is generally helpful	
B	Increased volatility is generally harmful	
C	Increased volatility is helpful when the underlying asset rises and harmful when the stock falls	
D	Increased volatility is harmful when the underlying asset rises and helpful when the stock falls	
E	Increased volatility does not affect the strategy	

19	What is the effect of increased volatility when you buy puts?	
A	Increased volatility is generally helpful	
B	Increased volatility is generally harmful	
C	Increased volatility is helpful when the underlying asset rises and harmful when the stock falls	
D	Increased volatility is harmful when the underlying asset rises and helpful when the stock falls	
E	Increased volatility does not affect the strategy	

20	When a call option is ATM the approximate delta value is:	
A	0.5	
B	500	
C	1	
D	10	
E	100	

21	As an option approaches its Expiration Date, Time Value _____.	
A	fluctuates in both directions	
B	stays the same	
C	increases	
D	decreases	
E	None of the above	

22	Which of the following will <u>NOT</u> help you limit your exposure to time decay?	
A	sell an option against one you already own, thereby creating a spread	
B	buy deep OTM options	
C	buy deep ITM options even if they are short term	
D	sell off ATM options with only 30 days to expiration	
E	sell the bought options	

23	Historical Volatility is based on _____.	
A	the implied volatility calculation	
B	the option's actual price	
C	a percentage of the option's actual price	
D	the underlying asset volatility over a selected period of time	
E	a percentage of the underlying asset's profitability	

24	Implied Volatility is based on _____.	
A	the historic volatility calculation	
B	the option's actual price	
C	a percentage of the underlying asset's volatility	
D	the underlying asset volatility over a period of time	
E	a percentage of the underlying asset's profitability	

Chapter 4 – Income Strategies

4.1 Introduction

Well, this is the part we've been waiting to get to ... to actually start trading with options strategies. It's important to realize that your trading career is a journey of continuous learning but one of the key lessons you'll discover is that simplicity is beautiful. Knowledge gives you perspective and the very best traders in the world have all trodden the well-trodden path to vast knowledge, only to eventually revert to a few tried and tested methods that suit them and their psychology.

The trick is to identify what suits you, but eventually it will come down to a discretionary yet systematised approach that is profitable and is comfortable for you.

One thing to be conscious of is the concept of multiple streams of income. If you have a job or some real estate or safe investments tucked away, then you have a stream of income on which you can rely. Trading options strategies can give you another way of generating income.

In this chapter I describe three basic income strategies that you should at least be aware of. There are more that I will describe in forthcoming webinars, but these will give you a grounding.

4.2 Covered Calls

Imagine a situation where you could buy a stock and receive a monthly ‘dividend’ on it. Sounds promising doesn’t it! And it’s something that many investors are doing over and over again, each and every month.

The covered call (or ‘buy write’) is one of the simplest options trading strategies and involves just two steps:

- (i) buy stock
- (ii) sell OTM call* with one month to expiration

Let’s look at each step in turn:

Buy stock Here you are buying an asset that you believe will rise over the short to medium term.

Sell OTM call This is the leg that generates you income. The premium you receive is yours to keep.

Before we get too excited, there are some scenarios we must examine, so we know what happens if the stock goes up, down or sideways. In other words, we need to understand our *risk profile*.

Here are the steps again:



Notice you’ve created the same shape as a naked put strategy - more on that later. With a covered call you buy the stock, which costs money. Then you partially offset that purchase by selling a short term OTM call option to generate income.

* Variations of the covered call include selling ATM calls or even ITM calls against the long stock position. Selling ATM or ITM will bring greater initial income, but the maximum gain is restricted due to the fact that the sold call can already be exercised without the stock rising. Selling OTM calls will bring lower initial income, but with the strike being above the current stock price, the stock has room to rise and make a gain.

The ATM and ITM variants are legitimate strategies in their own right, but for this report we will focus on the OTM covered call.

With a covered call, you are ‘covered’ because you already own the stock. Let’s take a look at each step:



(i) sell call for
income

Selling an option short exposes you to uncapped risk. The call buyer has the right to buy the underlying stock at the strike price. If the stock rises above the strike price, the call rises because it is further in the money, and the buyer has the right to buy the stock at the strike price. If the strike price is 30.00 and the stock price at expiration is \$33.00, then the call buyer is \$3.00 ITM and has the right to buy the stock at just \$30.00. Provided he paid less than \$3.00 for the call, he’s making a profit.




The seller of the call option has the opposite position. As the stock rises above \$30.00, the call seller will have the obligation to deliver the underlying stock to the call buyer at just \$30.00. In order to deliver the stock, the call seller has to buy the stock in the market at \$33.00, thereby making a \$3.00 loss. If he sold the call for less than 3.00 the call seller will make a loss on the entire trade. As the stock rises, the call seller will make bigger losses.

Therefore the call seller needs to cover himself...



(ii) buy stock for
cover

Buying the stock means that the call seller already owns the stock prior to being exercised by the call buyer should the stock price rise above the strike price. This means the call seller is **covered**, hence the name, **covered call**. Without having bought the stock, the call seller would be exposed to uncapped risk as the stock price rises beyond the strike price.

Profile	Description	Max Risk	Max Reward	Breakeven
	buy stock	purchase price	uncapped	purchase price
	sell call	uncapped	premium received	strike + premium
	Covered Call	cost of stock less premium received	[strike price – stock price paid] + call premium received	stock price paid less call premium received

Covered Call Example

ACME is trading at \$28.20 on 25 February. The 30.00 strike calls are trading at 0.90.

You want to sell 10 calls, but realise that you have to be covered. How many shares do you need to buy to cover the calls you want to sell?

$10 * 100 = 1,000$ shares.

Remember, for US stock options, you need to buy 1,000 shares to cover the 10 calls you're selling.

Here are the steps:

(i) buy 1,000 ACME shares at \$28.20	\$28,200
(ii) sell 10 ACME 30.00 strike March calls (option ticker QAXCF) at 0.90	\$900
Net investment	\$27,300

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	$\$0.00 - \$28.20 =$	$-\$28.20$
Short calls expire worthless	profit	0.90	$\$0.90$
	Total loss		$-\\$27.30$

Scenario 2 – stock falls to \$25.00

Stock now at \$25.00	loss	$\$25.00 - \$28.20 =$	$-\$3.20$
Short calls expire worthless	profit	0.90	$\$0.90$
	Total loss		$-\\$2.30$

Scenario 3 – stock falls to \$27.30

Stock now at \$27.30	loss	$\$27.30 - \$28.20 =$	$-\$0.90$
Short calls expire worthless	profit	0.90	$\$0.90$
	Breakeven		$\\$0.00$

Scenario 4 – stock remains at \$28.20

Stock now at \$28.20	→	$\$28.20 - \$28.20 =$	$\$0.00$
Short calls expire worthless	profit	0.90	$\$0.90$
	Total profit		$\\$0.90$

Scenario 5 – stock rises to \$30.00

Stock now at \$30.00	profit	$\$30.00 - \$28.20 =$	$\$1.80$
Short calls expire worthless	profit	0.90	$\$0.90$
	Total profit		$\\$2.70$

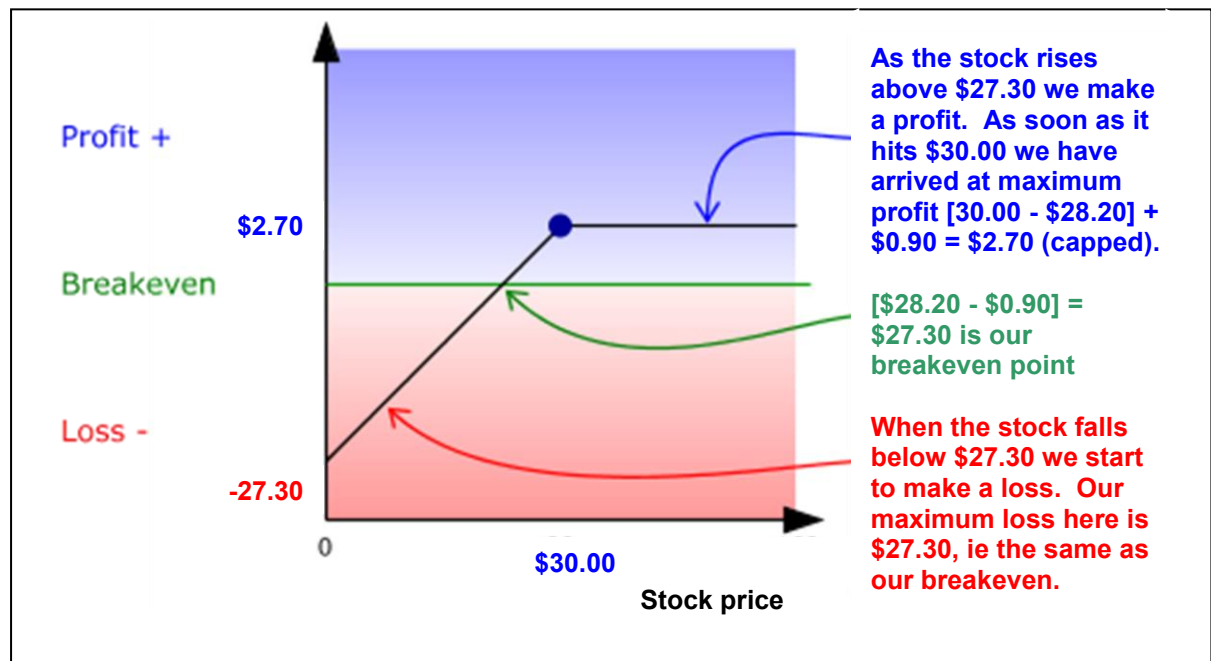
Scenario 6 – stock rises to \$30.90

Stock now at \$30.90	profit	$\$30.90 - \$28.20 =$	$\$2.70$
Short calls sold	profit	0.90	$\$0.90$
Short calls exercised at \$30.00	loss	$30.00 - 30.90$	$-\$0.90$
	Total profit		$\\$2.70$

Scenario 7 – stock rises to \$35.00

Stock now at \$35.00	profit	$\$35.00 - \$28.20 =$	$\$6.80$
Short calls sold	profit	0.90	$\$0.90$
Short calls exercised at \$30.00	loss	$30.00 - 35.00$	$-\$5.00$
	Total profit		$\\$2.70$

We can summarize our ACME covered call at expiration as follows:



There are a couple of important things to realize about the above trade:

- 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).

Nb: ACME closed up at \$28.73 on 19 March (expiration date) despite some savage market action during those few weeks. This gave us a profit of \$0.90 on the 30.00 strike calls (which expired worthless) and \$0.53 on the increase in stock price. So our total profit was \$1.43, which was a yield of 5.23% in less than one month. In the context of a stock market that saw 500 points shaved off the Dow, and 100 points off the Nasdaq 5.12% profit in 4 weeks on a covered call was a superb result!

The summary of the ACME March 30.00 covered call risk profile is as follows:

Max risk	[stock price paid – call premium]	\$28.20 - 0.90 = \$27.30
Breakeven	[stock price paid - call premium]	\$28.20 - 0.90 = \$27.30
Max reward	[call strike – stock price paid] + call premium	\$30.00 - \$28.20 + 0.90 = \$2.70
Initial yield		3.19%
Max yield		9.57%
Actual result	ACME closes on \$28.73 at expiration	5.12%

What would happen if we had written the 25.00 strike call when ACME was trading at \$28.20, in other words, what happens if we write an ITM covered call?

Assuming the **25.00** strike March calls are trading at **3.70**, then here's what would happen:

Max risk	[stock price paid – call premium]	\$28.20 - 3.70 = \$24.50
Breakeven	[stock price paid - call premium]	\$28.20 - 3.70 = \$24.50
Max reward	[call strike – stock price paid] + call premium	\$25.00 - \$28.20 + 3.70 = \$0.50
Initial yield		13.12%
Max yield		1.77%
Actual result	ACME closes on \$28.73 at expiration	1.77%

Covered Call Comparison

	30.00 strike (OTM)	25.00 strike (ITM)
You pay	\$28.20 - 0.90 = \$27.30	\$28.20 - 3.70 = \$24.50
Max risk	\$28.20 - 0.90 = \$27.30	\$28.20 - 3.70 = \$24.50
Breakeven	\$28.20 - 0.90 = \$27.30	\$28.20 - 3.70 = \$24.50
Max reward	\$30.00 - \$28.20 + 0.90 = \$2.70	\$25.00 - \$28.20 + 3.70 = \$0.50
Initial yield	3.19%	13.12%
Max yield	9.57%	1.77%
Actual result	5.12%	1.77%

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 13.12% compared to the

OTM initial yield of only 3.19%. However, look closer and see what the maximum yield on the trade is, and you'll start to realise that, despite the high initial yield, your maximum yield on the ITM covered call is only 1.77%. This is because you're obligated to sell the stock at \$25.00, yet you bought the stock for \$28.20. That's a \$3.20 immediate loss on your trade. You sold those ITM calls for 3.70, giving you a maximum profit for the trade of only \$0.50.

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 9.57% maximum yield. Even the 3.19% initial yield is attractive. Do you realise that if you made 3.19% every month that would translate to compounded yield of over 50% per annum.

If we had tried to choose the 35.00 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 an ACME March covered call is the 30.00 strike.

Remember, the reason for getting into a covered call is because you're neutral to bullish. You don't mind having a capped upside, because it's a short term income trade typically lasting only about one month.

Here is a definitive summary guide for covered calls:

4.2.1 Description

Steps to trading a Covered Call

1. Buy (or own) the stock
2. Sell calls one or two strike prices out of the money [OTM] (ie calls with strike prices one or two strikes price higher than the stock)
 - If the stock is purchased simultaneously with writing the call contract, the strategy is commonly referred to as a 'buy-write'.
 - Generally, only sell the calls on a monthly basis. In this way you will capture more in premiums over several months, provided you are not exercised. Selling premium every month will net you more over a period of time than selling premium a long way out. Remember that whenever you are selling options, time decay works in your favour. Time decay is at its fastest rate in the last 20 trading days (ie the last month), so when you sell option premiums, it is best to sell it with a month left, and do it again the following month.
 - Remember that your maximum gain is capped when the stock reaches the level of the call strike price.
 - If trading US stocks and options, you will be required to buy (or be long in) 100 shares for every options contract that you sell.

Steps In

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV)
- Preferably between \$10 and \$50. Above \$50 becomes expensive to buy the stock
- Try to ensure that the trend is upward or rangebound and identify a clear area of support

Steps Out

- Manage your position according to the rules defined in your Trading Plan
- If the stock closes above the strike at expiration, you will be exercised. You will deliver the stock at the strike price, whilst having profited from both the option premium you received and the uplift in stock price to reach the strike price. Exercise is automatic.
- If the stock remains below the strike but above your stop loss, let the call expire worthless and keep the entire premium. If you like you can then write another call for the following month.
- If the stock falls below your stop loss, then either sell the stock (if you're approved for naked call writing), or reverse the entire position (the call will be cheap to buy back).

4.2.2 Context

Your Outlook

- With a Covered Call, your outlook is **neutral to bullish**. You expect a steady rise.

Rationale

- To buy (or own) 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.
- If the stock rises your short call may be exercised in which case you will make some profit. If you are exercised then your shares will be sold.
- 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).

Net Position

- 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.

- Your maximum risk is the price you paid for the stock less the premium you received for the call.

Effect of Time Decay

- 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 hit the strike price at expiration, you will be able to retain the entire option premium for the trade, thus reducing your original cost of buying the share.

Appropriate Time Period to Trade

- Sell the calls on a monthly basis

Selecting the Stock

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Preferably between \$10 and \$50. Above \$50 would be expensive to buy the stock.
- Try to ensure that the trend is upward or rangebound and identify a clear area of support.
- Use the Analyzer to verify current market data and calculations.

Appropriate Chart Setups

- Up trends, bull flags, bowls, cup and handles, bullish breakouts through resistance, cup and handles, reverse head and shoulders.

Selecting the Option

- Choose options with adequate liquidity, open interest should be at least 100, preferably 500.
- **Strike:** look for either the ATM or just OTM (higher) strike above the current stock. If you're bullish, then choose a higher strike, if neutral choose the ATM strike.
- **Expiration:** look at either of the next 2 expirations and compare monthly yields. Look for over 3% monthly initial cash yield.

4.2.3 Risk Profile

- **Max risk** [stock price paid – call premium]
- **Breakeven** [stock price paid - call premium]

- **Max reward** [call strike – stock price paid] + call premium

4.2.4 Greeks

Risk Profile

As the stock price rises the covered call moves into profit but slows down as it approaches the strike price and maximum profit.

Delta

Delta (speed) is positive and falls to zero as the asset price rises above the strike price and the maximum profit is achieved.

Gamma

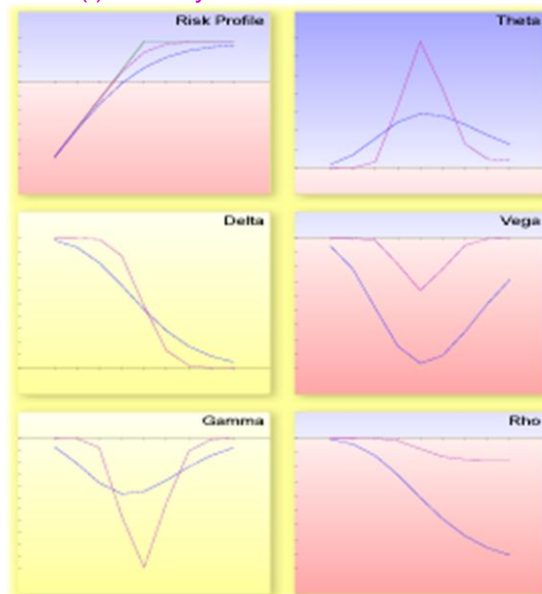
Gamma (acceleration) is always negative with this position because you are a net seller of calls.

Key:

Expiration

Today - 2 months

Time(t) - 10 days



Theta

Theta is positive; illustrating that Time Decay is helpful to the position.

Vega

Vega is negative; illustrating that volatility is harmful to the position.

Rho

Rho is negative; illustrating that higher interest rates would be harmful to the position.

4.2.5 Advantages and Disadvantages

Advantages

- Generate monthly income
- Lower risk than simply owning the stock
- Can profit from rangebound stocks

Disadvantages

- Expensive strategy in terms of cash outlay
- Capped upside if the stock rises
- Uncapped downside if the stock falls, cushioned only by the call premium received

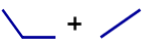

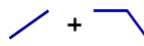

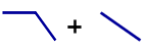

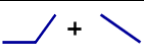

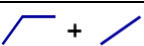

A way of enhancing the yield of a covered call would be to replace the stock leg with a longer term deep ITM call, and selling the OTM shorter term call to produce the income. Done correctly this creates the diagonal call strategy where the yield can be up to four times greater than the covered call because the deep ITM call is so much cheaper than buying the stock.






Be aware that the diagonal call is an excellent strategy but only if done correctly, and that needs tools so you can see how the strategy will play out. I'll be talking about that in forthcoming webinars.

For now, how would you like to be able to protect the downside to your covered call, so that even if the stock falls like a stone, you've got some protection? Well, we're going to investigate that right after these questions.

Q&As

1	Name the component parts to creating a Covered Call.	
A	Buy Put and sell stock	
B	Buy Put and buy stock	
C	Buy Call and sell stock	
D	Buy Call and buy stock	
E	Buy stock and sell Call	

2	Select the drawn components of creating a Covered Call.	
A	 + 	
B	 + 	
C	 + 	
D	 + 	
E	 + 	

3	What does a Covered Call risk profile look like?	
A		
B		
C		
D		
E		

4	What is your outlook for a Covered Call?	
A	High volatility	
B	Bearish	
C	Bullish or Bearish	
D	Low volatility	
E	Bullish	

5	What is your rationale for a Covered Call?	
A	Explosive increase in the stock price giving a massive capital gain	
B	Limited risk as stock steadily declines, unlimited reward as stock rises	
C	Monthly income as stock steadily rises	
D	Unlimited risk as the stock declines and unlimited reward as stock rises	
E	No stock movement anticipated	

6	You enter a Covered Call trade. You buy the stock for \$87.67 and write the following month's 90.00 strike calls for 7.33. What is your maximum risk at expiration?	
A	\$95.00	
B	Unlimited	
C	\$80.34	
D	\$87.67	
E	\$82.67	

7	You enter a Covered Call trade. You buy the stock for \$87.67 and write the following month's 90.00 strike calls for 7.33. What is your potential reward?	
A	\$9.66	
B	\$2.33	
C	\$5.00	
D	\$7.67	
E	Unlimited	

8	You enter a Covered Call trade. You buy the stock for \$87.67 and write the following month's 90.00 strike calls for 7.33. What is your breakeven point?	
A	\$87.67	
B	\$80.34	
C	\$90.00	
D	\$92.67	
E	\$87.67 and \$92.67	

4.3 Protecting the Covered Call – the Collar

Q. What happens if you're nervous about the covered call and want to protect the downside, almost like an insurance policy?

A. We can buy an OTM put option and create what's known as a 'Collar'.

Collars are typically best employed for long term strategies, however, you can also use them to insure a covered call against a calamitous fall in the stock price.

The collar involves three steps:

- (i) buy stock
- (ii) sell OTM call with one month to expiration
- (iii) buy OTM put with same expiration as the sold call

Let's look at each step in turn:

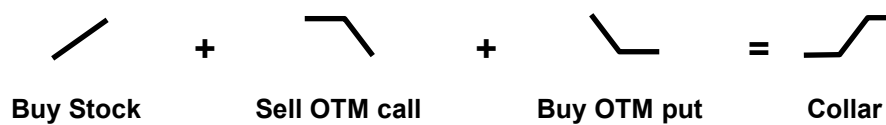
Buy stock Here you are buying an asset that you believe will rise over the short to medium term.

Sell OTM call This is the leg that generates you income. The premium you receive is yours to keep.

Buy OTM put **Insure the trade against a fall in the share price**

Let's look at the *risk profile* of the collar:

Here are the steps again:



What we've done here is to cap the downside potential of the covered call so that even if the stock crashes to zero, we won't get too badly hurt. If you like playing high yielding covered calls then this would be a good protective measure to take.

Taking our ACME example from 25 February, let's take a look at the covered call and then add the long put to it.

Collar Example

ACME is trading at \$28.20 on 25 February. The 30.00 strike calls are trading at 0.90 and the 25.00 strike puts are trading at 0.60.

You want to do the covered call strategy as above, but also want to insure the trade against a market downturn.

Here are the steps:

(i) buy 1,000 ACME shares at \$28.20	\$28,200
(ii) sell 10 ACME 30.00 strike March calls (option ticker QAXCF) at 0.90	-\$900
(iii) buy 10 ACME 25.00 strike March puts (option ticker QAXOE) at 0.60	\$600
Net investment	\$27,900

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	$\$0.00 - \$28.20 =$	-\$28.20
Short calls expire worthless	profit	0.90	\$0.90
Long puts worth \$25.00 at expiration	profit	$\$25.00 - 0.60 =$	\$24.40
Total loss			\$2.90

Scenario 2 – stock falls to \$25.00

Stock now at \$25.00	loss	$\$25.00 - \$28.20 =$	-\$3.20
Short calls expire worthless	profit	0.90	\$0.90
Long puts expire worthless	loss	0.60	-\$0.60
Total loss			\$2.90

Scenario 3 – stock falls to \$27.90

Stock now at \$27.90	loss	$\$27.90 - \$28.20 =$	-\$0.30
Short calls expire worthless	profit	0.90	\$0.90
Long puts expire worthless	loss	0.60	-\$0.60
	Breakeven		\$0.00

Scenario 4 – stock remains at \$28.20

Stock now at \$28.20	→	$\$28.20 - \$28.20 =$	\$0.00
Short calls expire worthless	profit	0.90	\$0.90
Long puts expire worthless	loss	0.60	-\$0.60
	Total profit		\$0.30

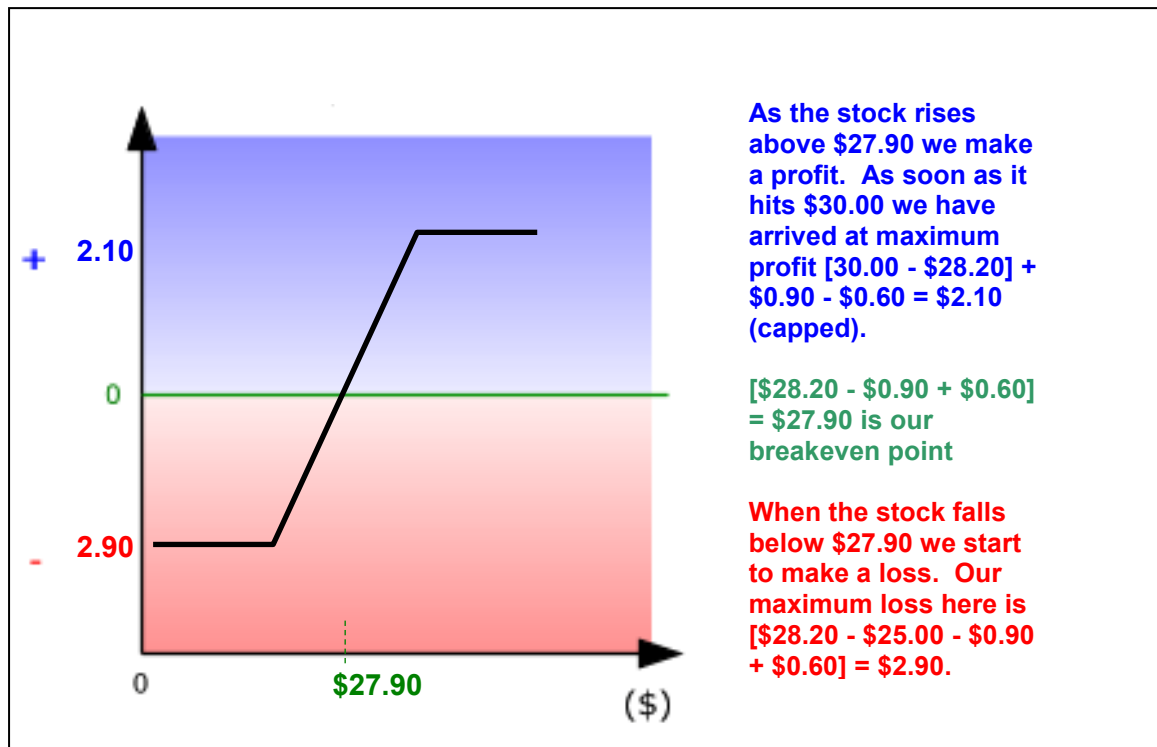
Scenario 5 – stock rises to \$30.00

Stock now at \$30.00	profit	$\$30.00 - \$28.20 =$	\$1.80
Short calls expire worthless	profit	0.90	\$0.90
Long puts expire worthless	loss	0.60	-\$0.60
	Total profit		\$2.10

Scenario 6 – stock rises to \$35.00

Stock now at \$35.00	profit	$\$35.00 - \$28.20 =$	\$6.80
Short calls sold	profit	0.90	\$0.90
Short calls exercised at \$30.00	loss	$30.00 - 35.00$	-\$5.00
Long puts expire worthless	loss	0.60	-\$0.60
	Total profit		\$2.10

We can summarize our ACME collar at expiration as follows:



Remember that a turning point signifies a strike price. So in the above picture one of the turning points is the 25.00 put strike and the other is the 30.00 call strike.

Max risk	[stock price paid – put strike] – call premium + put premium	$\$28.20 - \$25.00 - 0.90 + 0.60$ = \$2.90
Breakeven	[stock price paid - call premium + put premium]	$\$28.20 - 0.90 + 0.60$ = \$27.90
Max reward	[call strike – stock price paid] + call premium - put premium	$\$25.00 - \$28.20 + 0.90 - 0.60$ = \$2.10
Initial yield	call premium / [stock price paid + put premium]	$0.90 / [\$28.20 + 0.60] = 3.13\%$
Max yield on cost	[(call premium – put premium) + [call strike – stock price paid]] / ([stock price paid + put premium – call premium])	7.53%
Max yield on risk	[(call premium – put premium) + [call strike – stock price paid]] / [max risk]	72.41%
Actual result		\$0.83 28.62% on risk 2.97% on cash outlay

Collar and Covered Call Comparison

	30.00 strike Covered Call	25.00 - 30.00 strike Collar
You pay	$\$28.20 - 0.90 = \mathbf{\$27.30}$	$\$28.20 - 0.90 + 0.60 = \mathbf{\$27.90}$
Max risk	$\$28.20 - 0.90 = \mathbf{\$27.30}$	$\$28.20 - \$25.00 - 0.90 + 0.60 = \mathbf{\$2.90}$
Breakeven	$\$28.20 - 0.90 = \mathbf{\$27.30}$	$\$28.20 - 0.90 + 0.60 = \mathbf{\$27.90}$
Max reward	$\$30.00 - \$28.20 + 0.90 = \mathbf{\$2.70}$	$\$30.00 - \$28.20 + 0.90 - 0.60 = \mathbf{\$2.10}$
Initial yield	$0.90 / \$28.20 = \mathbf{3.19\%}$	$0.90 / [\$28.20 + 0.60] = \mathbf{3.13\%}$
Max yield on cost	$(0.90 + (\$30.00 - \$28.20)) / \$28.20 = \mathbf{9.57\%}$	$(0.90 - 0.60 + (\$30.00 - \$28.20)) / \$27.90 = \mathbf{7.53\%}$
Max yield on risk	$(0.90 + (\$30.00 - \$28.20)) / \$28.20 = \mathbf{9.57\%}$	$(0.90 - 0.60 + (\$30.00 - \$28.20)) / \$2.90 = \mathbf{72.41\%}$
Actual result	5.12%	28.62% on risk 2.97% on cash outlay

The main factor to consider here is that the collar is more expensive but is far safer in terms of how much money is at risk. Supposing that we're trading covered calls for the right reasons (ie the technicals and fundamentals stack up) then typically we'd be happy with the strategy knowing that we've done our research. However, if we're simply looking for high yielding covered calls with no care for the underlying performance of the company, then a collar would be a great strategy to employ because your downside risk would be capped, whilst you'd still achieve a high yield depending on where you place your put strike.

The bottom line is this: if you want to insure your covered calls, then buy an OTM put with the same expiration date.

Here is a definitive summary guide for collars:

4.3.1 Description

Steps to trading a Collar

1. Buy the stock - [**buy**]
2. Buy an OTM put - [**insure**]
3. Sell an OTM call - [**finance**]

Steps In

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Preferably between \$10 and \$50. Above \$50 becomes expensive to buy the stock.
- Try to ensure that the trend is upward or rangebound and identify a clear area of support.

Steps Out

- Manage your position according to the rules defined in your Trading Plan.
- At expiration you hope that your call will be exercised and that you've made your maximum profit.
- If the stock remains below the call strike but above your stop loss, let the call expire worthless and keep the entire premium. If you like you can then write another call for the following month.
- The point of a collar is that you set the put strike at or above your stop loss creating a minimum risk trade.

4.3.2 Context

Your Outlook

- With a Collar, your outlook is conservatively **bullish** but this is supposed to be a very low risk strategy.

Rationale

- To execute a low risk trade where capital is preserved, but income can be generated.

Net Position

- This is a **net debit** transaction because money will come out of your account. This is different to actual risk. If you select the right strike prices for

the bought put and sold call you may be able to execute this trade with no risk at expiration even though money has been debited from your account in order to make the trade. You will need to verify the risk profile with the option prices and available strikes - it will not always be possible.

- If you are lucky with the availability of both friendly options premiums and strikes then you may be able to structure a low risk, riskless, or even a guaranteed return trade. This is because your long position in the stock will rise up to the point of the sold call strike price, giving you a profitable (albeit limited) upside. If the stock falls, then the ATM Leap put (your insurance) will rise in value and you will simultaneously retain the premium received by having sold the OTM call. This combination will offset the fall in value of the long stock.

Effect of Time Decay

- It will be helpful with the sold call
- It will be unhelpful to the bought put
- It will have no effect on the stock you have bought.

Appropriate Time Period to Trade

- Although collar opportunities are optimised for longer term trades, you can still use them in the above context for protecting covered calls.

Selecting the Stock

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Preferably between \$10 and \$50. Above \$50 would be expensive to buy the stock.
- Try to ensure that the trend is upward or rangebound and identify a clear area of support.
- Use the Analyzer to verify current market data and calculations.

Appropriate Chart Setups

- Up trends, bull flags, bowls, cup and handles, bullish breakouts through resistance, cup and handles, reverse head and shoulders.

Selecting the Option

- Choose options with adequate liquidity, open interest should be at least 100, preferably 500.
- **Put Strike** look for either the ATM or just OTM (lower) strike below the current stock price, it depends how much insurance you want.
- **Call Strike:** look for either the ATM or just OTM (higher) strike above the current stock. If you're bullish, then choose a higher strike, if neutral choose the ATM strike.

- **Expiration:** look at either of the next 2 expirations and compare monthly yields if you're doing this for the purpose of protecting your covered calls. Look for over 2% monthly initial cash yield. Typically the best collars occur with at least 1 year to expiration. You can, if you want to experiment, buy only a 6 month put if you think you only need insurance for a set period of time, but the authentic collar uses the same expiration dates for both put and call. Use the Analyzer to experiment with the strikes and expiration dates for your optimum trade.

4.3.3 Risk Profile

- **Max risk** $[\text{stock price paid} - \text{put strike}] - \text{call premium} + \text{put premium}$
- **Breakeven** $[\text{stock price paid} - \text{call premium} + \text{put premium}]$
- **Max reward** $[\text{call strike} - \text{stock price paid}] + \text{call premium} - \text{put premium}$

4.3.4 Greeks

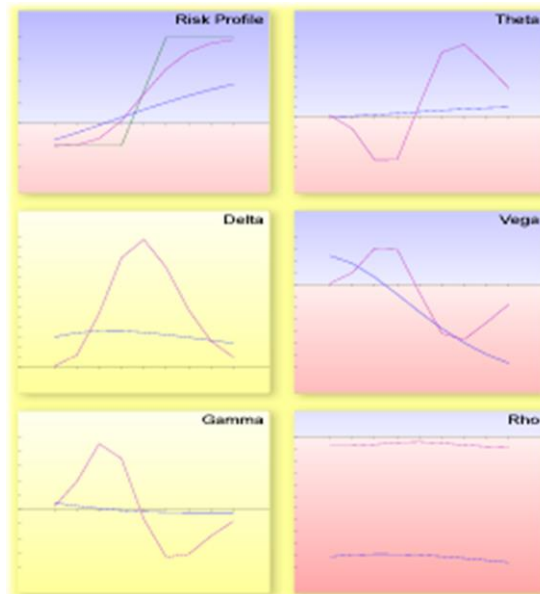
Key
 Expiration
 Today – 1 year
 Time(t) – 1 month

Risk Profile

As the stock price rises the collar moves into profit. Our losses are capped because we bought a put.

Delta

Delta (speed) is positive and peaks between the strike prices



Theta

Time Decay is harmful to the position when the stock price is low and becomes helpful when the position is profitable.

Vega

Higher volatility is helpful to the position when it is in a losing position and is harmful when the position is profitable.

Gamma

Gamma (acceleration) is high and positive when the position is below the lower (put) strike, and low and negative when the position is ITM. Notice how gamma is around zero when delta peaks, illustrating no acceleration when delta is at a turning point.

Rho

Rho is negative; illustrating that higher interest rates would be harmful to the position.

4.3.5 Advantages and Disadvantages

Advantages

- Give yourself maximum protection against a fall in the underlying stock price
- With volatile stocks you can create a very low risk, even riskless trade
- Can create a high yield on risk

Disadvantages
















- Expensive strategy in terms of cash outlay
- Works best for longer term strategies (over 1 year), so is slow
- Maximum upside only occurs at expiration
- Creates only a low reward on capital expended






Do you remember how we said a covered call had the same shape as a short put? Well, we're going to compare the two strategies just as soon as you've completed this next short test.

Q&As

9	How could you protect the downside to a Covered Call?	
A	Sell the stock	
B	Buy the stock	
C	Buy a Call	
D	Buy a Put	
E	Sell a Call	

10	Name the component parts to creating a Collar.	
A	Buy Put and sell stock	
B	Buy Put and buy stock	
C	Buy stock, buy Put and sell Call	
D	Sell stock, buy Put and sell Call	
E	Buy stock, buy Call and sell Put	

11	Select the drawn components of creating a Collar.	
A	 +  + 	
B	 +  + 	
C	 +  + 	
D	 +  + 	
E	 +  + 	

12	What does a Collar risk profile look like?	
A		
B		
C		
D		
E		

13	What is your outlook for a Collar?	
A	Aggressively Bearish	
B	Conservatively Bearish	
C	Bullish or Bearish	
D	Low volatility	
E	Conservatively Bullish	

14	What is your rationale for a Collar?	
A	Explosive increase in the stock price giving a massive capital gain	
B	Limited risk as stock steadily declines, unlimited reward as stock rises	
C	Limited reward and monthly income as stock steadily rises, unlimited risk as stock declines	
D	Unlimited risk as the stock declines and unlimited reward as stock rises	
E	Low and limited risk as the stock declines, limited reward as stock rises	

15	How could you protect the downside to a Collar?	
A	You already have by buying a Put	
B	You already have by selling a Put	
C	You already have by buying a Call	
D	You already have by selling a Call	
E	Buy a Call	

16	You buy stock at \$112.50; you sell 130.00 strike calls for 23.00 and you buy 110.00 strike puts for 20.50. What is your maximum risk at expiration?	
A	\$0.00	
B	Unlimited	
C	\$2.50	
D	\$3.00	
E	\$6.50	

17	You buy stock at \$112.50; you sell 130.00 strike calls for 23.00 and you buy 110.00 strike puts for 20.50. What is your potential reward?	
A	\$23.00	
B	Unlimited	
C	\$7.50	
D	\$20.50	
E	\$20.00	

18	You buy stock at \$112.50; you sell 130.00 strike calls for 23.00 and you buy 110.00 strike puts for 20.50. What is your breakeven?	
A	\$112.50	
B	N/A	
C	\$107.00	
D	\$109.50	
E	\$110.00	

4.4 Naked Puts

With covered calls we have to buy the stock in order to cover the call we sold.

The covered call is a bullish strategy that is profitable if the stock remains neutral or rises.

With naked puts we can create the same shape of risk profile simply by selling short term puts, but we have to adhere to a few important rules beforehand.

The naked put involves just one step ... selling a put option. However, it's a strategy that rightly got a bad name during the early 2000s mainly because novice traders were getting too greedy with it and trying to extract the maximum yields from each trade, with no regard to the potential risk they were taking on. Done correctly, with the consent of your broker and appropriate margin collateral, naked puts can be a good alternative to covered calls.

Let's look at the steps to take:

Sell OTM put The secret to this strategy is to sell a way **OTM** put with only a month or less to expiration.

Again, before we get too excited, there are some scenarios we must examine, so we know what happens if the stock goes up, down or sideways. In other words, we need to understand our *risk profile*.

Here is the step again:



Sell OTM put

While the naked put does indeed *look like* a covered call, there are some key differences. With covered calls, as we saw in the ACME example, the emphasis is more on bullishness...we make more money if the stock goes up. With naked puts, as you'll see, the emphasis is on *support* and ensuring we've picked a stock that won't go down. The bonus with naked puts is that we don't have to own the stock, so our capital doesn't have to be all tied up in it.

With a naked put, we have potential exposure to unlimited risk if the stock price falls to zero. Let's have a look at the step we have to take:




(i) sell put for **income**

Selling an option short exposes you to uncapped risk. The put buyer has the right to sell the underlying stock at the strike price. If the stock falls below the strike price, the put rises in value because it is further in the money, and the put buyer has the right to sell the stock at the strike price. If the strike price is 25.00 and the stock price at expiration is \$23.00, then the put buyer is \$2.00 ITM and has the right to sell the stock at \$25.00. Provided he paid less than 2.00 for the put, he's making a profit.

The seller of the put option has the opposite position. As the stock falls below \$25.00, the put seller will have the obligation to buy the underlying stock from the put buyer at \$25.00. With the stock falling to \$23.00 the put seller now has a \$2.00 loss. If he sold the call for less than 2.00 the put seller will make a loss on the entire trade. As the stock falls, the put seller will make bigger losses.

Therefore the put seller needs to be carefully selective about the stock he chooses to use this strategy on, plus ensure that there is plenty of cushion between the current stock price and the put strike price.

The rule is: **only sell naked puts on those stocks you want to own at the strike price you chose.** Also ensure there is plenty of support above the strike you choose, so that you increase your chances of being profitable and minimise the chance of being exercised. Bear in mind you'll need margin in the form of stocks or cash to be able to trade a naked put.

Profile	Description	Max Risk	Max Reward	Breakeven
	sell put	[strike – premium]	premium received	[strike – premium]

Naked Put Example

ACME is trading at \$28.20 on 25 February. The March 25.00 strike puts are trading at 0.50.

You want to sell 10 puts, which means, if the stock moves below \$25.00 and we get exercised, we'd be obligated to buy 1,000 shares of ACME. If ACME were to plunge to zero, our maximum loss on the trade could be \$25,000 less the \$500 we receive for the puts. This is highly unlikely to happen, however, this is why we only want to sell OTM puts with a short time to expiration, and only on stocks that we'd like to own at the discounted price anyway.

Here are the steps:

(i) sell 10 ACME 25 strike March puts (option ticker QAXOE) at **0.50** **\$500**

Net credit
\$500

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 - \$25.00 =	-\$25.00
Short puts sold	profit	0.50	<u>\$0.50</u>
	Total loss		\$24.50

Scenario 2 – stock falls to \$24.50

Stock now at \$24.50	loss	\$24.50 - \$25.00 =	-\$0.50
Short puts sold	profit	0.50	<u>\$0.90</u>
	Breakeven		\$0.00

Scenario 3 - stock falls to \$25.00

Stock now at \$25.00	→	\$25.00 - \$25.00 =	\$0.00
Short puts expire worthless	profit	0.50	<u>\$0.50</u>
	Total profit		\$0.50

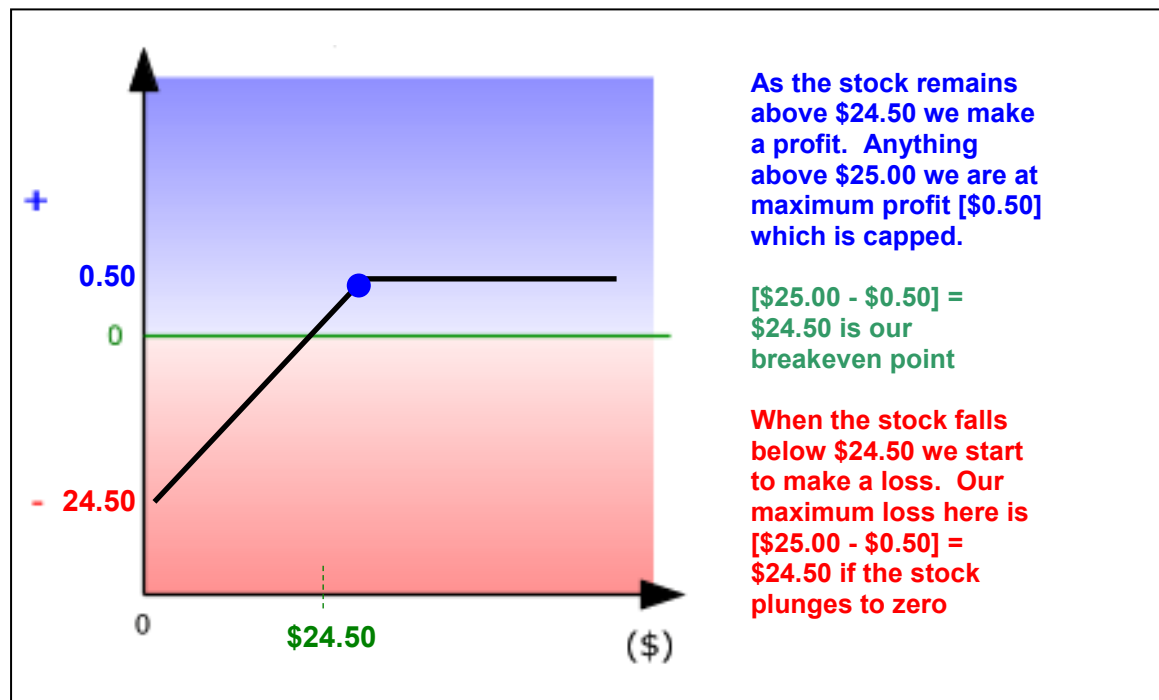
Scenario 4 – stock remains at \$28.20

Stock now at \$28.20	→		\$0.00
Short puts expire worthless	profit	0.50	<u>\$0.50</u>
	Total profit		\$0.50

Scenario 5 – stock rises to \$30.00

Stock now at \$30.00	→		\$0.00
Short puts expire worthless	profit	0.50	\$0.50
	Total profit		\$2.70

We can summarize our ACME naked put at expiration as follows:



Remember that a turning point signifies a strike price. So in the above picture the turning point is the 25.00 put strike.

Max risk	[put strike – put premium received]	\$25.00 - 0.50 = \$24.50
Breakeven	[put strike – put premium received]	\$25.00 - 0.50 = \$24.50
Max reward	[put premium]	= \$0.50
Return on risk	put premium / risk	0.50 / \$24.50 = 2.04%
Cushion	[current stock price – breakeven]	\$28.20 - \$24.50 = \$3.70 = 13.12%

Naked Put and Covered Call Comparison

	30.00 strike Covered Call	25.00 strike Naked Put
You pay	$\$28.20 - 0.90 = \mathbf{\$27.30}$	nil
Max risk	$\$28.20 - 0.90 = \mathbf{\$27.30}$	$\$25.00 - 0.50 = \mathbf{\$24.50}$
Breakeven	$\$28.20 - 0.90 = \mathbf{\$27.30}$	$\$25.00 - 0.50 = \mathbf{\$24.50}$
Max reward	$\$30.00 - \$28.20 + 0.90 = \mathbf{\$2.70}$	$\mathbf{\$0.50}$
Initial yield	$0.90 / \$28.20 = \mathbf{3.19\%}$	$0.50 / \$24.50 = \mathbf{2.04\%}$
Max yield on cost	$(0.90 + (\$30.00 - \$28.20)) / \$28.20 = \mathbf{9.57\%}$	$\mathbf{2.04\%}$
Cushion	$(\$28.20 - \$27.30) = \mathbf{\$0.90}$ $= \mathbf{3.19\%}$	$\$28.20 - \$24.50 = \mathbf{\$3.70}$ $= \mathbf{13.12\%}$

In our ACME example, the stock price was \$28.73 at expiration, meaning the naked put expired worthless allowing us to keep the entire premium and make our maximum reward. The covered call worked out a little better, but the naked put gave us far more cushion.

The main factor to consider here is that the OTM naked put offers less reward but far greater cushion and safety. In the early 2000s before the tech crash, many speculators were selling ATM puts or puts that were only slightly OTM on highly volatile tech stocks. When it worked, they would collect double digit percentage income every month, but after the crash, such stocks literally fell like stones to almost zero. This tactic was eminently crazy, but brokers, newsletters and forums were encouraging it as if it couldn't go wrong. When it did, it left people not just with all their profits having disappeared, but in many cases their homes too.

So, if you're going to trade naked puts, you can do so...but follow the rules:

- (i) Only sell naked puts on those stocks you'd love to own at the discounted price.
- (ii) Sell as distant OTM puts as the yield will justify
- (iii) Only sell short term puts (1 month or less to expiration)
- (iv) Because you're only looking at strong stocks anyway (as in rule (i)) you can then look for strong technical support well below the current stock price to position your strike.
- (v) Ensure you have at least 10% cushion on the trade, if not more.

The covered call can give you scope for upside potential. With naked puts, if the stock keeps rising you don't make extra profit.

Here is a definitive summary guide for naked puts:

4.4.1 Description

Steps to trading a Naked Put

1. Sell the put with a strike price lower than the current stock price.

Steps In

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV)
- Try to ensure that the trend is upward and identify a clear area of support

Steps Out

- Manage your position according to the rules defined in your Trading Plan.
- Hopefully the stock will rise or remain static, allowing your sold put to expire worthless so you can keep the entire premium.
- If the stock falls below your stop loss, then exit the position by buying back the puts.
- Time decay will be helping your position by eroding the value of the put every day, so, all other things being equal the put you sold will be declining in price every day, allowing you to buy it back for less than you bought it for, unless the underlying stock falls of course.

4.4.2 Context

Your Outlook

- With a Naked Put, your outlook is **neutral to bullish**. You certainly do not expect a fall and you should have carefully selected the stock in the first place.

Rationale

- To pick up short term premium **income** as the share develops price strength;
or
- To lower the cost basis of buying a share (if the put is exercised).

Net Position

- This is a **net credit** transaction because you are being paid for the put option.
- Your maximum risk is the put strike price less the premium you receive for the put. This is considered a high risk strategy.
- Your maximum reward is capped to the price you receive for the option.

Effect of Time Decay

- Time decay works with your naked sold option. To take advantage of the maximum rate of time decay sell the put in the last month before the option's expiration.
- Don't be fooled by the false economy that longer term options are more lucrative. Compare a one month option to a 12 month option and multiply the shorter option price by 12. You will see that you are receiving far more *per month* for the 1 month option.

Appropriate Time Period to Trade

- One month to expiration or less.

Selecting the Stock

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Preferably between \$10 and \$50. Above \$50 would be expensive to buy the stock if you were exercised.
- Try to ensure that the trend is upward and identify a clear area of support.
- Use the Analyzer to verify current market data and calculations.

Appropriate Chart Setups

- Up trends, bull flags, bowls, cup and handles, bullish breakouts through resistance, cup and handles, reverse head and shoulders.

Selecting the Option

- Choose options with adequate liquidity, open interest should be at least 100, preferably 500.
- **Strike:** look for OTM (lower) strikes well below the current stock price
- **Expiration:** give yourself as little time to be wrong - remember that your short position exposes you to uncapped risk, and that time decay accelerates exponentially (in your favour when you're short) in the last month before expiration, so only short the option with a maximum of 1 month to expiration, preferably less.

4.4.3 Risk Profile

- **Max risk** [put strike price– put premium]
- **Breakeven** [put strike price– put premium]

- **Max reward** put premium

4.4.4 Greeks

Key:

Expiration

Today - 6 months

Time(t) - 1 month

Risk Profile

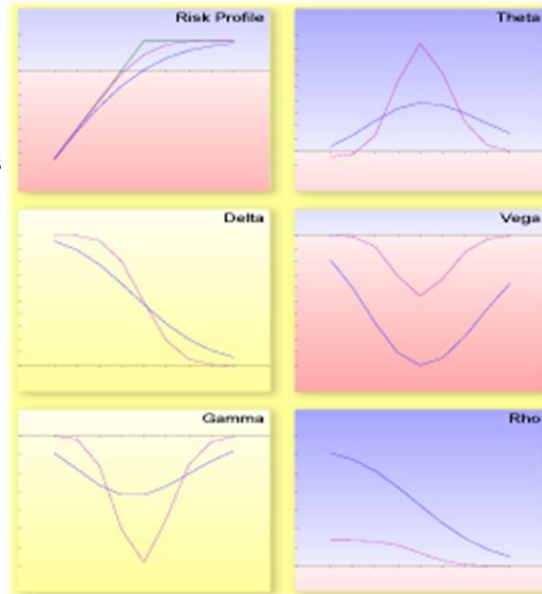
As the stock price rises or remains static the naked put remains in profit. If the stock falls, then the naked put starts making losses.

Delta

Delta (speed) is positive and falls to zero as the asset price rises above the strike price and the maximum profit is achieved.

Gamma

Gamma (acceleration) is always negative with this position because you are a net seller of puts.



Theta

Theta is positive; illustrating that Time Decay is helpful to the position.

Vega

Vega is negative; illustrating that volatility is harmful to the position.

Rho

Rho is positive; illustrating that higher interest rates would be helpful to the position.

4.4.5 Advantages and Disadvantages

Advantages

- Generate monthly income
- Alternative way of buying a high quality stock at a discounted price
- If done correctly, can profit from rising or rangebound stocks without having to buy them

Disadvantages


- Uncapped risk if the stock falls
- Capped upside even if the stock rises
- Needs some experience of stock watching.

With naked puts you must stick to the rules and your broker will ensure you have enough margin collateral. Do not get greedy and go for the big yield on a technically deficient stock. Only go where the chart setup and the OVI are in your favour, and with a strike price that (a) is tucked below solid support and where you have plenty of cushion between the current stock price and the strike price.

There is a way of limiting the potential damage of a naked put, and that is by buying a lower strike put to create a bull put spread. This is something I'll cover in a forthcoming webinar.

Now we've covered three strategies that you can use to generate income on a regular basis. In the next chapter we're going to investigate two more strategies you can use if you get a stock tip, or if you want to benefit from a stock going up or down but aren't sure of the direction. Before we get there, let's answer these questions about naked puts first.

Q&As

19	 =	
A	Buying a Call	
B	Buying a Put	
C	Selling a Call	
D	Selling a Put	
E	Straddle	

20	If you sell put options you are _____	
A	bearish	
B	neutral to bearish	
C	long	
D	short	
E	a and c	

21	When you sell a put what is your outlook?	
A	Neutral to bullish	
B	Bearish	
C	Bullish or Bearish	
D	Directionless	
E	None of the above	

22	I receive 7.55 for selling a 100.00 strike put. The stock price is currently \$103.45. What is my potential risk for this trade?	
A	\$3.45	
B	\$7.55	
C	\$2.45	
D	\$92.45	
E	Unlimited	

23	I receive 7.55 for selling a 100.00 strike put. The stock price is currently \$103.45. What is my potential reward for this trade?	
A	\$3.45	
B	\$7.55	
C	\$2.45	
D	Unlimited	
E	\$1.55	

24	You receive 8.25 for selling a 90.00 strike put. The stock price is currently \$89.35. What is your breakeven point for this trade?	
A	\$81.10	
B	\$98.25	
C	\$97.60	
D	\$81.75	
E	\$89.35	

Chapter 5 – Strategies for News Events

5.1 Introduction

Have you ever been given a red-hot stock tip? What happened? Could you resist the temptation? Did you win or lose? Would you do it again? I'll bet you would!

It's often quite difficult to resist at least checking a stock if it's been recommended by someone you feel might know what they're talking about. Typically, stock tips end in disaster. However, there are two strategies you can use to get involved but not lose your shirt if the stock price moves in an unexpected way. These strategies are also useful if you can't resist playing a stock immediately before a news event (such as earnings) that you know is about to be released for that stock.

The two strategies are:

- **Synthetic Call (or Married Put)**
Where you insure a stock purchase by buying puts to create the same shape as a long call, but with minimal risk if the stock falls.
- **Straddle**
Where you buy calls and puts in order to profit from a big move either way.

Done correctly, as outlined here, these strategies will ensure you can enjoy some added risk, but not pay too high a price for it.

5.2 Synthetic Call

The synthetic call is a very simple strategy that involves:

- (i) buying stock
- (ii) buying an OTM put to insure the trade

Notice that the synthetic call contains two of the legs contained in a collar. The difference here is that we're not going to cap our upside profit potential.

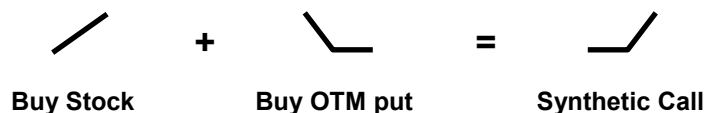
Remember that when we buy a stock, our maximum risk is the price we pay for it. So if we pay \$33.00 for a stock, that's our maximum risk (ie if the stock falls to zero). A synthetic call enables us to reduce this maximum risk to an absolute minimum.

Let's look at each step in turn:

- Buy stock** Here you are buying an asset that you believe will rise over the short to medium term.
- Buy OTM put** This is the leg that insures the trade from a calamitous fall in stock price. The premium you pay for the put is the cost of the insurance. The position of the strike price will determine the level of insurance you get. The higher the strike, the more insurance you'll have and the more expensive it will be.

Let's look at the *risk profile* now.

Here are the steps again:





As you can see, we've created the same shape as a long call strategy. However, there are key differences, one of which is that with the synthetic call, we pay for both the stock itself and the option. This makes our cost basis high when compared with just buying calls. However, this is a conservative strategy, and insuring our trades is indicative of that kind of philosophy.




With a synthetic call, our risk is capped to a fraction of what we pay, no matter what happens to the stock. With a straightforward long call, we can lose the entire premium if the call expires OTM.

Let's look at each leg in more detail:

With a covered call, you are ‘covered’ because you already own the stock. Let’s have a look at each step:

	(i) buy stock for capital growth	Here, we’re buying the stock because we think this price will rise in the short to medium term.
	(ii) buy put for insurance	<p>Buying the put means that if the stock were to fall, then our puts would increase in price and insure our long stock position by effectively cancelling out those losses.</p> <p>The amount of insurance depends on the put strike price relative to the price we bought the stock at, and how much we pay for that put.</p> <p>An ATM put would give us complete insurance, but would be expensive.</p> <p>An OTM put would give us less insurance, but would be cheaper.</p>

Let’s take a closer look still:

Profile	Description	Max risk	Max reward	Breakeven
	buy stock	purchase price	uncapped	purchase price
	buy put	put premium paid	strike – put premium paid	strike - put premium paid
	synthetic call	cost of stock – put strike + put premium paid	uncapped	cost of stock + put premium paid

Synthetic Call Example

ACME is trading at \$30.30 on 12 March.

You hear a rumour that ACME is going to the moon and want to buy 1,000 shares. However, because is a ‘hot tip’ you also want to insure the trade, just in case it goes wrong.

To insure the trade, you need to buy 10 put contracts.

$$[1,000 / 100] = 10 \text{ contracts}$$

Remember, for US stock options, you need to buy 10 puts to insure the 1,000 shares you're buying.

First we need to know:

(a) How long do we want to insure for?

Let's say that we only want to insure the trade for a month.

(b) How much insurance do we want?

We need to compare the 30.00 strike with the 25.00 strike puts. Then we can decide.

Here are the steps:

Trade A

(i) buy 1,000 ACME shares at \$30.30	\$30,300
(ii) buy 10 ACME 30.00 strike April puts at 2.80	\$2,800
Net investment	\$33,100

Trade B

(i) buy 1,000 ACME shares at \$30.30	\$30,300
(ii) buy 10 ACME \$25.00 strike April puts at 1.00	\$1,000
Net investment	\$31,300

Let's take a closer look at the two scenarios:

Scenario 1 – stock falls to \$0.00

Trade components	Profit / (loss) (\$)	Total position
Stock now at \$0.00	$\$0.00 - \$30.30 = (30.30)$	
A. 30 strike puts	$\$30.00 - 2.80 = 27.20$	$\$27.20 - \$30.30 =$ -\$3.10
B. 25 strike puts	$\$25.00 - 1.00 = 24.00$	$\$24.00 - \$30.30 =$ -\$6.30

Scenario 2 – stock falls to \$25.00

Trade components	Profit / (loss) (\$)	Total Position
Stock now at \$25.00	$25.00 - 30.30 = (5.30)$	
A. 30 strike puts	$30.00 - 25.00 - 2.80 = 2.20$	$2.20 - 5.30 =$ -\$3.10
B. 25 strike puts	$25.00 - 25.00 - 1.00 = (1.00)$	$(1.00) - 5.30 =$ -\$6.30

Scenario 3 – stock falls to \$30.00

Trade components	Profit / (loss) (\$)	Total Position
Stock now at \$30.00	$30.00 - 30.30 = (0.30)$	
A. 30 strike puts	$30.00 - 30.00 - 2.80 = (2.80)$	$(2.80) - 0.30 =$ -\$3.10
B. 25 strike puts	$0.00 - 1.00 = (1.00)^*$	$(1.00) - 0.30 =$ -\$1.30

* maximum loss on a long option is the price paid for it

Scenario 4 – stock remains at \$30.30

Trade components	Profit / (loss) (\$)	Total Position
Stock now at \$30.30	$30.30 - 30.30 = 0.00$	
A. 30 strike puts	$0.00 - 2.80 = (2.80)^*$	$0.00 - 2.80 =$ -\$2.80
B. 25 strike puts	$0.00 - 1.00 = (1.00)^*$	$0.00 - 1.00 =$ -\$1.00

* maximum loss on a long option is the price paid for it

Scenario 5 – stock rises to \$31.30

Trade components	Profit / (loss) (\$)	Total Position
Stock now at \$31.30	$31.30 - 30.30 = 1.00$	
A. 30 strike puts	$0.00 - 2.80 = (2.80)$	$1.00 - 2.80 =$ -\$1.80
B. 25 strike puts	$0.00 - 1.00 = (1.00)$	$1.00 - 1.00 =$ \$0.00

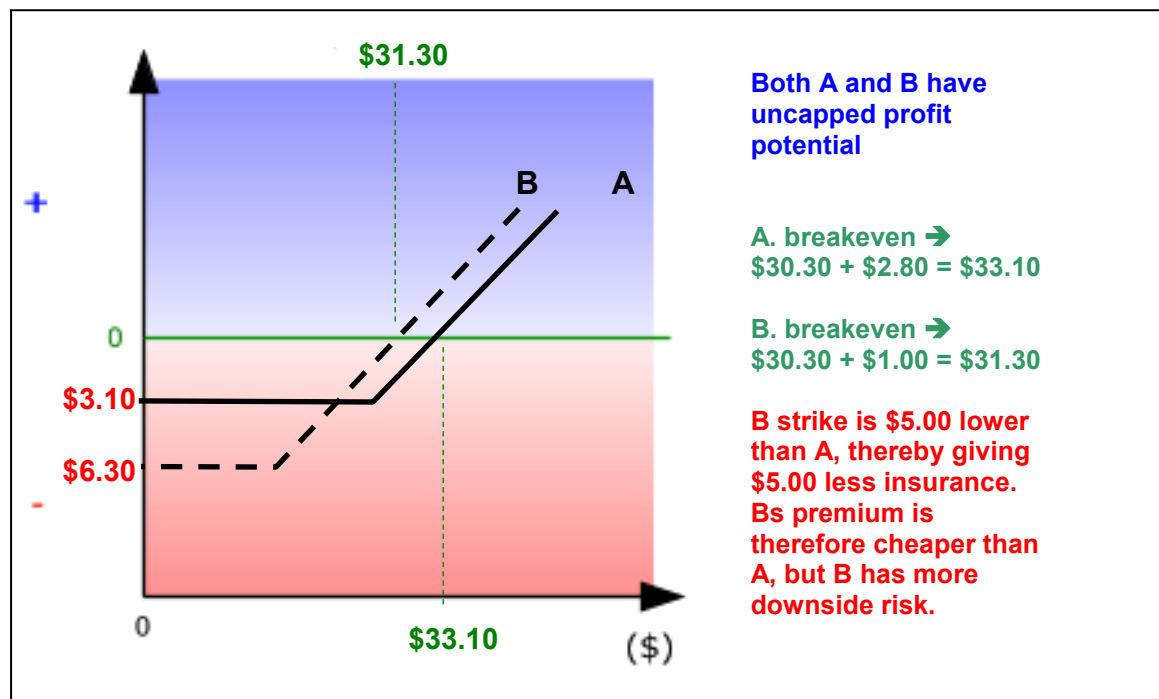
Scenario 6 – stock rises to \$33.10

Trade components	Profit / (loss) (\$)	Total Position
Stock now at \$33.10	$33.10 - 30.30 = 2.80$	
A. 30 strike puts	$0.00 - 2.80 = (2.80)$	$2.80 - 2.80 =$ \$0.00
B. 25 strike puts	$0.00 - 1.00 = (1.00)$	$2.80 - 1.00 =$ \$1.80

Scenario 7 – stock rises to \$35.00

Trade components	Profit / (loss)	Total Position
Stock now at \$35.00	$35.00 - 30.30 = 4.70$	
A. 30 strike puts	$0.00 - 2.80 = (2.80)$	$4.70 - 2.80 =$ \$1.90
B. 25 strike puts	$0.00 - 1.00 = (1.00)$	$4.70 - 1.00 =$ \$3.70

We can summarize our ACME synthetic calls at expiration as follows:



See the bought put as an insurance policy.

- A.** Our insurance kicks in just \$0.30 below the price we bought the stock. This gives us cover after the stock falls by just 1%. For this kind of cover we're prepared to pay more, hence the 2.80 premium.
 We arrive at our breakeven by adding the premium to the price we paid for the stock [$2.80 + \$30.30 = \33.10].
 Our total risk on the trade is the difference between the put strike and our stock purchase price, plus the put premium [$\$30.30 - \$30.00 + 2.80 = \$3.10$].
- B.** Our insurance here only kicks in at \$25.00, which gives the stock \$5.30, or 17.5%, scope for a fall in price before we get any kind of cover. Consequently, we'd pay substantially less for this insurance, here, only 1.00.
 We arrive at our breakeven by adding the premium to the price we paid for the stock [$1.00 + \$30.30 = \31.30].
 Our total risk on the trade is the difference between the put strike and our stock

purchase price, plus the put premium [$\$30.30 - \$25.00 + \$1.00 = \6.30].

The summary of the ACME April 30.00 strike synthetic call risk profile is as follows:

Max risk	stock price paid - put strike price + put premium	$\$30.30 - \$30.00 + 2.80$ = \$3.10
Breakeven	stock price paid + put premium	$\$30.30 + 2.80$ = \$33.10
Max reward	uncapped	uncapped

The summary of the ACME April 25.00 strike synthetic call risk profile is as follows:

Max risk	stock price paid - put strike price + put premium	$\$30.30 - \$25.00 + 1.00$ = \$6.30
Breakeven	stock price paid + put premium	$\$30.30 + 1.00$ = \$31.30
Max reward	uncapped	uncapped

Synthetic Call Comparison

	Trade A → \$30.00 strike	Trade B → \$25.00 strike
You pay	$\$30.30 + 2.80 = \mathbf{\$33.10}$	$\$30.30 + 1.00 = \mathbf{\$31.30}$
Max risk	$\$30.30 - \$30.00 + 2.80 = \mathbf{\$3.10}$	$\$30.30 - \$25.00 + 1.00 = \mathbf{\$6.30}$
Breakeven	$\$30.30 + 2.80 = \mathbf{\$33.10}$	$\$30.30 + 1.00 = \mathbf{\$31.30}$
Max reward	uncapped	uncapped

The lower strike gives us a lower breakeven, so we're profitable more quickly, but we have a greater risk if the stock price moves against us (downwards).

Compare these figures and see which trade you would prefer to take. It all depends on your tolerance for risk and how much you're prepared to rely on this so-called red-hot tip! There is no right answer; but your own analysis and research should give you a clue as to how much insurance you want on the trade and, therefore, how close you want to set your put strike.

Here is a definitive summary guide for synthetic calls:

5.2.1 Description

Steps to Trading a Synthetic Call

1. Buy (or own) the stock
2. Buy puts as close to the stock price you're paying for or just one strike price OTM (ie below the current stock price).
 - Notice that you have created the same shape risk profile of a call option (but you have paid a lot more for it). What you are doing is capping your downside risk by buying the put option, having already bought the stock.
 - If trading US stocks and options, you will be required to buy (or be long in) 100 shares for every options contract that you sell.

Steps In:

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Preferably between \$10 and \$50. Above \$50 becomes expensive to buy the stock.
- Try to ensure that the trend is upward or rangebound and identify a clear area of support.

Steps Out:

- Manage your position according to the rules defined in your trading plan.
- If the stock falls, then you may want to unravel the entire trade because the stock is behaving contrary to your expectations.
- If the stock rises above the strike plus the put premium paid, then you will make a profit at expiration. Only buy as much insurance as you need time-wise, but then add an extra month so you can avoid the final month of accelerated time decay on the put.
- If the stock falls below your stop loss, then either sell the stock and keep the put, or reverse the entire position.

5.2.2 Context

Your Outlook

- With a synthetic call, your outlook is **bullish** but you are being prudent and buying some insurance to protect you against a dramatic fall in the stock.

Rationale

- To buy a stock for the medium or long term with the aim of underwriting your downside in the shorter term, perhaps prior to a specific news event.
- If the stock rises more than the cost of the put, you will make profit.
- If the stock falls, you will lose money, but your losses will be capped at the level of the put strike price. The higher the strike (which should be lower or equal to the price you bought the stock at), the more insurance you'll have. The lower (more OTM) the put strike, the less insurance you'll have (and the cheaper it'll be).

Net Position

- This is a **net debit** transaction because you are paying for the stock and the put as well. As such, this is an expensive strategy in cash terms.
- Your maximum risk is capped if the stock falls.

Effect of Time Decay

- Time decay is harmful to your put. Therefore buy a put with a month longer to expiration than you strictly need. Then sell the put (with some time value) with a month left.

Appropriate Time Period to Trade

- Buy the put with at least one month longer to expiration than you need it.

Selecting the Stock

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Preferably between \$10 and \$50. Above \$50 makes it expensive to buy the stock.
- Try to ensure that the trend is upward or rangebound and identify a clear area of support.
- Use the Analyser to verify current market data and calculations.

Selecting the Option

- Choose options with adequate liquidity; open interest should be at least 100, preferably 500.
- **Strike:** look for either the ATM or just OTM (lower) strike below the current stock. If you're confident of the stock rising, then choose a lower strike; if you want maximum insurance, choose the ATM strike, which will be more expensive.
- **Expiration:** depends on how long you want the insurance for. If it's just to get past an earnings report, then just buy enough time to

cover that event plus one more month to avoid the worst effects of time decay.

5.2.3 Risk Profile

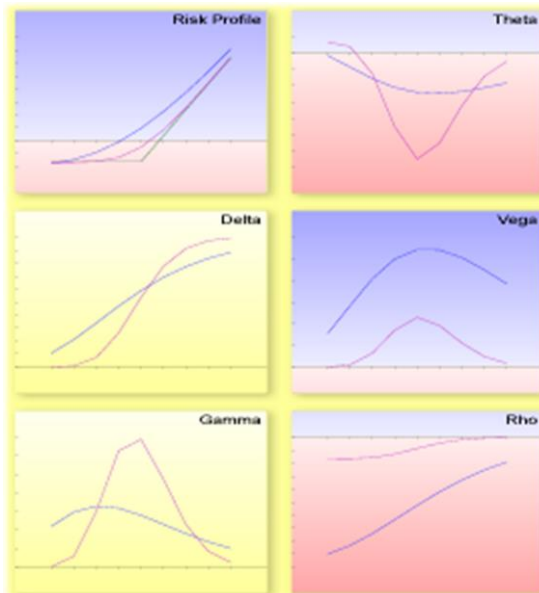
- **Max risk** stock price paid + put premium - put strike
- **Breakeven** stock price paid + put premium
- **Max reward** uncapped

5.2.4 Greeks

Key:
 Expiration
 Today - 6 months
 Time(t) - 1 month

Risk Profile

As the stock price rises, the synthetic call moves into profit. Our losses are capped as soon as the stock falls below the strike price.



Theta

Theta is negative, illustrating that time decay is harmful to the position. This is because you're a net buyer of options.

Delta

Delta (speed) is positive, just like when you buy a call option.

Vega

Vega is positive, illustrating that volatility is helpful to the position.

Gamma

Gamma (acceleration) is always positive with this position because you are a net buyer of options (puts here).

Rho

Higher interest rates are unhelpful to the position.

5.2.5 Advantages and Disadvantages

Advantages

- Buying the put insures your long stock against a catastrophic decline, thus capping your downside risk more effectively than just a stop loss on the stock alone, particularly in the event of a gap down.
- Much safer than buying a call option.
- Upside is uncapped.

Disadvantages

- Expensive strategy in terms of cash outlay.
- Leverage is much slower than just buying a call, because you've bought the stock.

Example showing leverage:

A stock is trading at \$50.00.

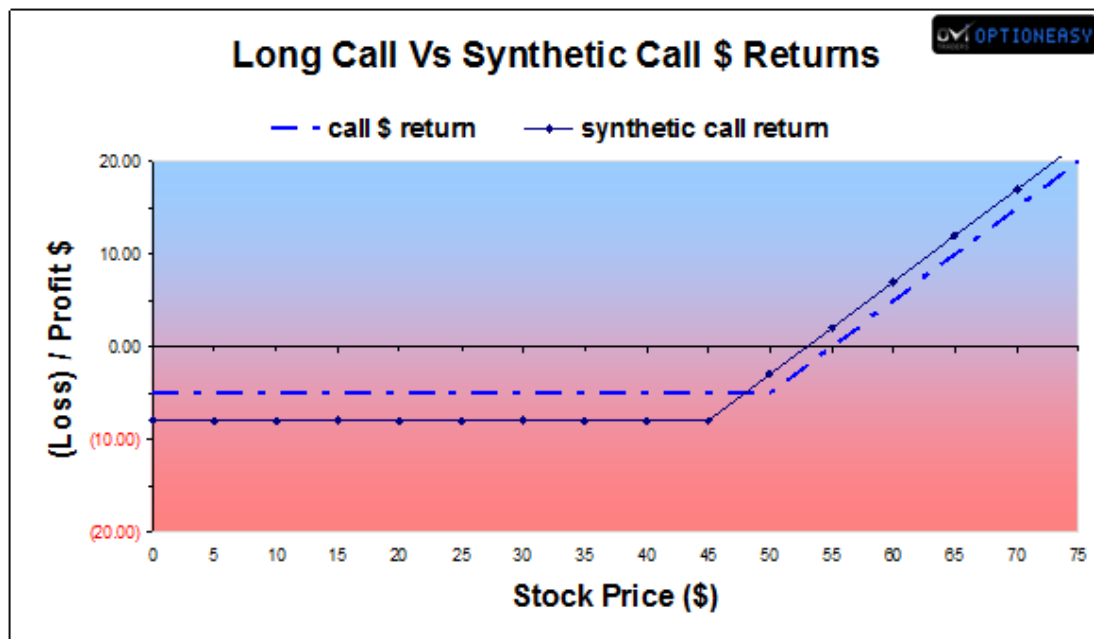
Compare these two trades:

- (i) Buy a 50.00 strike call for \$5.00; or
- (ii) Buy the stock at \$50.00 and insure the trade by buying 45.00 strike puts.

Here are our dollar values at expiration:

Stock price	Stock	Call	Put	Synthetic call
0	-50	-5	42	-8
5	-45	-5	37	-8
10	-40	-5	32	-8
15	-35	-5	27	-8
20	-30	-5	22	-8
25	-25	-5	17	-8
30	-20	-5	12	-8
35	-15	-5	7	-8
40	-10	-5	2	-8
45	-5	-5	-3	-8
50	0	-5	-3	-3
55	5	0	-3	2
60	10	5	-3	7
65	15	10	-3	12
70	20	15	-3	17
75	25	20	-3	22
80	30	25	-3	27
85	35	30	-3	32
90	40	35	-3	37
95	45	40	-3	42
100	50	45	-3	47

When we look at the dollar-for-dollar returns, the *shape* of the profile looks very similar.

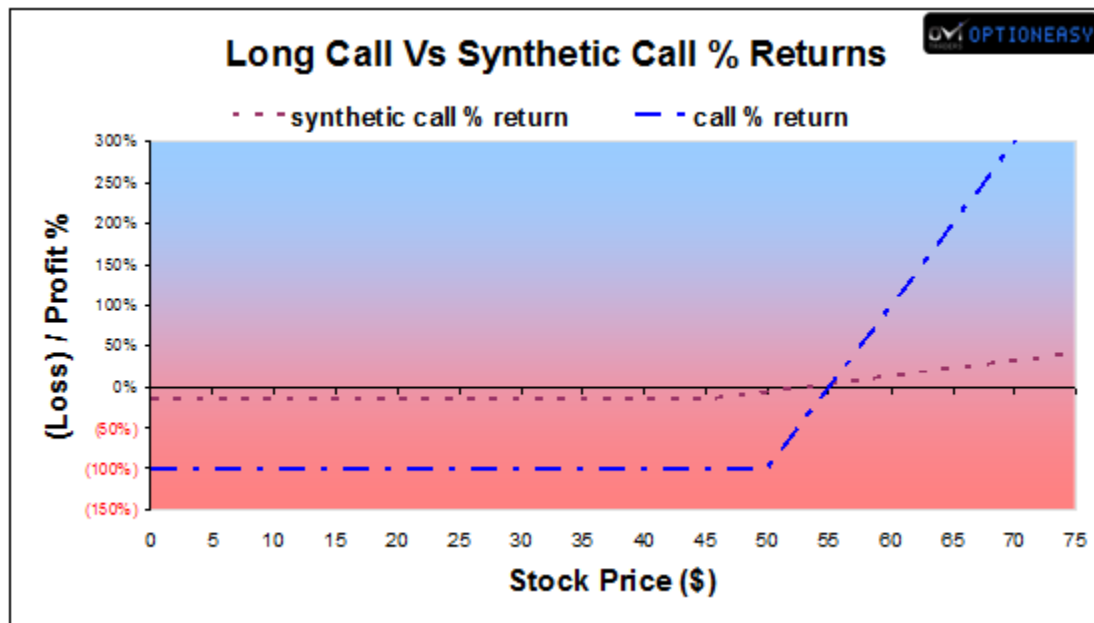


However, this is rather deceptive. Let's now look at the *percentage* returns of a long call vs a synthetic call:

Stock price	Stock %	Call %	Put %	Synthetic call %
0	(100%)	(100%)	1,400%	(15%)
5	(90%)	(100%)	1,233%	(15%)
10	(80%)	(100%)	1,067%	(15%)
15	(70%)	(100%)	900%	(15%)
20	(60%)	(100%)	733%	(15%)
25	(50%)	(100%)	567%	(15%)
30	(40%)	(100%)	400%	(15%)
35	(30%)	(100%)	233%	(15%)
40	(20%)	(100%)	67%	(15%)
45	(10%)	(100%)	(100%)	(15%)
50	0%	(100%)	(100%)	(6%)
55	10%	0%	(100%)	4%
60	20%	100%	(100%)	13%
65	30%	200%	(100%)	23%
70	40%	300%	(100%)	32%
75	50%	400%	(100%)	42%

Stock price	Stock %	Call %	Put %	Synthetic call %
80	60%	500%	(100%)	51%
85	70%	600%	(100%)	60%
90	80%	700%	(100%)	70%
95	90%	800%	(100%)	79%
100	100%	900%	(100%)	89%

Now look at the shape of the percentage returns:








The long call percentage returns are spectacular because the cost of the trade is so small, whereas the synthetic call carries with it the burden of having bought the stock. Therefore the percentage returns are much smaller, because the cost base is so much higher.

Summary

The synthetic call is a not only an effective low-risk strategy that will insure you against a catastrophic fall in the stock price, but it's also more effective than a stop loss because if a stock gaps down past your stop loss, it wouldn't hold. The put option, on the other hand, would simply increase in value as the stock free-falls, protecting your long position in the stock and capping your losses.

If you like the idea of making money when a stock goes wildly up or down (ie if volatility explodes), but don't know the likely direction of the breakout, then you'll find a straddle a very attractive strategy. Let's answer these questions first, then see how we can trade straddles.

Q&As






1	If you buy a stock and a put option, what risk profile have you created?	
A		
B		
C		
D		
E		

2	You buy stock at \$112.50 and you buy 110.00 strike puts for 20.50. What is your maximum risk at expiration?	
A	\$12.50	
B	\$23.00	
C	\$2.50	
D	\$18.00	
E	Unlimited	

3	You buy stock at \$112.50 and you buy 110.00 strike puts for 20.50. What is your potential reward?	
A	\$12.50	
B	\$23.00	
C	\$2.50	
D	\$18.00	
E	Unlimited	

4	You buy stock at \$112.50 and you buy 110.00 strike puts for 20.50. What is your breakeven?	
A	\$112.50	
B	N/A	
C	\$133.00	
D	\$130.50	
E	\$110.00	

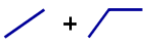

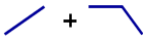

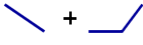





5	You buy stock at \$112.50 and you buy 110.00 strike puts for 20.50. What is this position called?	
A	Covered call	
B	Covered put	
C	Collar	
D	Synthetic straddle	
E	None of the above	

6	What does a synthetic call risk profile look like?	
A		
B		
C		
D		
E		

7	Name the component parts to creating a synthetic call.	
A	Buy stock and sell put	
B	Sell stock and buy put	
C	Sell stock and buy call	
D	Buy stock and buy put	
E	Buy stock and sell call	

8	What is your outlook with a synthetic call?	
A	Anticipating large price movement in either direction	
B	Bearish	
C	Anticipating rangebound price action	
D	Anticipating low volatility	
E	Conservatively bullish	

9	What is the rationale for a synthetic call?	
A	Simulate the profile of a long call but with less risk and less leverage	
B	Simulate the profile of a short call but with less risk and less leverage	
C	Simulate the profile of a long call but with less risk and more leverage	
D	Simulate the profile of a long call but with more risk and more leverage	
E	Simulate the profile of a short call but with more risk and more leverage	

10	Select the drawn components of creating a synthetic call	
A	 + 	
B	 + 	
C	 + 	
D	 + 	
E	 + 	

11	What is the effect of time decay on a synthetic call?	
A	Time decay is generally helpful	
B	Time decay is generally harmful	
C	Time decay is generally helpful when the position is profitable and harmful when the position is unprofitable	
D	Time decay is generally helpful when the position is unprofitable and harmful when the position is profitable	
E	Time decay does not affect the strategy	

5.3 Straddle

The straddle is a simple strategy which, when executed correctly, can give excellent returns with low risk in very quick time. We're looking for a stock which we're certain is about to make an explosive move, but we're not certain about the direction of that move.

The steps are:

- (i) Buy ATM puts
- (ii) Buy ATM calls with same expiration date.

In order to trade straddles successfully, you must follow the specific rules that we'll go through during this chapter.

Let's look at these steps combined:

Buy ATM put Both put and call share the same strike price and expiration date. The key to this strategy lies in the timing of the trade and the expiration date chosen.
And buy ATM call Buying a call and put together makes the straddle an expensive strategy, so the reason for the trade must be matched with the specific tactics. With straddles there can be different tactics.

Each leg of the trade has limited downside (ie the call or put premium) but uncapped upside. Assuming that the movement of the stock is enough to cover the cost of the trade, you should be profitable.

However, you also need to apply various rules when trading straddles. There are three challenges with buying options:

- time decay
- the bid/ask spread; and
- implied volatility.

The *risk profile* looks like this:



Straddle	
Maximum risk	Cost of the trade
Maximum reward	Uncapped
Breakeven to the downside	Strike Price <i>less</i> cost of trade
Breakeven to the upside	Strike Price <i>plus</i> cost of trade
Max risk on cost	100% risk on cost

Time decay hurts long options positions because options are like wasting assets. The closer you get to expiration, the less time value there is in the option. Time decay accelerates exponentially during the last month before expiration, so you typically don't want to hold onto anything other than deep ITM options into the last month, but there are exceptions.

The bid/ask spread for ATM options is tighter than it is for way OTM or ITM options. It's can be tight to within a penny for the largest stocks like AAPL. However, the bid/ask spread can get too wide even when you're dealing with S&P 500 stocks where the ATM bid/ask spread can be 10% or more. This can be a serious problem for an otherwise promising looking trade. As a rule try not to allow more than 4% for the bid/ask spread ratio for straddles.

Implied volatility could be a book in itself, but the most important thing to understand in the context of straddles, is that implied volatility will be crushed immediately after a news announcement such as earnings.

In the 'good old days' the earnings-surprise straddle was a no-brainer as you could buy cheap implied volatility immediately prior to the earnings report, and it didn't diminish too dramatically post earnings. This meant you could buy a straddle pre-earnings and exit immediately afterwards if there was no aftershock with a manageable haircut in terms of loss. You now have to be much smarter to trade in this way because of the pre-earnings rush and the post-earnings crush in implied volatility.

Ultimately you must have good reasons for getting in, staying in, and then getting out of a straddle. You also need to know that the price that you're paying for the straddle is reasonable both in terms of implied volatility and also in comparison to the propensity the stock has to making a significant move. In other words, the straddle needs to be great value from the outset and depending on the specific tactic you're playing it can only help if the stock is one that has previous form for being able to move decisively.

There are three main times where a straddle is an appropriate strategy.

1. The earnings surprise play is still doable but with some strict rules to ensure you do not overpay for the options. Typically you would do this with 3-month options.
2. The pre-earnings in-and-out straddle uses front or second month options. This is where you time your entry before implied volatility has started its pre-earnings rise, and sell the position a few days later, after implied volatility has risen but before the earnings announcement.
3. Without necessarily revolving around a news event, where the stock is making a key reversal setup, preferably while the broader markets are exhibiting a similar key reversal pattern. Such setups would include my favored reversal patterns such as wide-ranged Doji bars or Railroad Tracks, again with the broader markets also displaying similar setups.
A well-formed flag pattern can also be an attractive setup for a straddle due to the

constriction in stock volatility while the consolidation pattern forms that can also lead to lower implied volatility in the options. Flag patterns often precede a big move, thereby giving the setup two key merits: possible low implied volatility on the way in, and potential explosive price movement in the underlying thereafter.

With all three tactics, buying options with low implied volatility is critical.

Here are some pointers for trading these variations of the straddle:

The Earnings Surprise Straddle:

Here you're looking to profit from an earnings announcement that causes a large move in the stock price. It is critical to ensure you are getting in cheaply in order to mitigate against the inevitable implied volatility crush immediately after the earnings announcement.

1. If you're sensitive to paying high premiums then choose stocks from \$15.00 to \$60.00.
2. Try to keep the bid/ask ratio down to below 4% at the most, preferably lower.
3. Ideally the stock will be forming a setup that may result in a large and quick move. Such setups include key reversals (like doji bars or railroad tracks at 20-day extreme prices) or consolidation patterns such as flags, where the price bars have become tighter and where price volatility has clearly contracted, hopefully in advance of a big move in either direction.
4. Before placing your straddle trade, check that the implied volatility has not already risen too far. To trade the earnings surprise straddle you should view a chart of implied volatility for the appropriate time to expiration (www.optioneasy.com).

For example, if you're trading a straddle with options that have 3-months to expiration, you want to assess implied volatility for options with a similar time frame to expiration, say 2-4 months, rather than the 1-month to expiration equivalent which will be much more sensitive.

Ideally, in advance of the trade you want to see implied volatility relatively low compared to itself over previous pre-earnings periods. The hope is that the stock will move significantly and implied volatility will rise after you're in the position. Buy ATM calls and puts with the expiration at least two months away, preferably three. You can get away with four months if nothing else is available. A three-month option will be impacted by the typical post-earnings implied volatility crush less severely than a one-month option which will also be severely impacted by time decay.

5. The cost of the straddle should be less than half of the stock's recent high less its recent low. By recent, I mean the last 40 trading days for a two-month straddle, the last 60 trading days for a three-month straddle, or the last 80 days for a four-month straddle. The point here is that the cost of the straddle should be low in comparison with the potential the stock has shown itself to move.
6. If trading for an earnings surprise, exit within two weeks after the news event occurs. Avoid holding the position during the final month before expiration. In the final month, options suffer from accelerating time decay, which would therefore erode your position.

7. If the stock moves decisively in one direction such that one side is already making the entire trade profitable, you can use a 'dynamic trailing stop' to trail the stock in steps and protect the profits that you're sitting on.

The Pre-Earnings In-and-Out Straddle:

Here you're looking to profit from the implied volatility rush that occurs in the weeks before earnings is announced. Again the key is to ensure you're buying cheap implied volatility from the outset.

1. If you're sensitive to paying high premiums then choose stocks from \$15.00 to \$60.00.
2. Try to keep the bid/ask ratio down to below 4% at the most, preferably lower.
3. Ideally the stock will be forming a setup that may result in a large and quick move. Such setups include key reversals (like doji bars or railroad tracks at 20-day extreme prices) or consolidation patterns such as flags, where the price bars have become tighter and where price volatility has clearly contracted, hopefully in advance of a big move in either direction.
4. Before placing your trade, check that the implied volatility has not already started its pre-earnings rise – this will be obvious from the implied volatility chart. To trade straddles you should be able to view a chart of implied volatility for the appropriate time to expiration (www.optioneasy.com).

For this particular straddle you'll typically be trading the second month expiration for an in-and-out trade before the earnings announcement. You therefore want to assess implied volatility for options with the relevant time frame to expiration.

Ideally, in advance of the trade you want to see the relevant month implied volatility relatively low compared to itself over time and especially compared with previous earnings dates. The hope is that the stock will move significantly and the implied volatility will rise after you've placed your trade.

Typically the initial pre-earnings IV rush occurs between two and four weeks before the earnings date, so you want to be in before this, and while IV is still cheap.

For the best chance of optimal timing with plenty of trades available, buy second month options whose expiration is after the earnings date, roughly one month before earnings, and where the IV has not already started ramping up. The pre-earnings IV rush will cause the IV to rise noticeably. You'll have to eyeball the IV chart (we have this facility on www.optioneasy.com), and the key is to ensure you're buying relatively cheap options.

You want to see previous evidence of the IV rising prior to previous earnings announcements. You also want to see evidence of the stock jumping in price around its previous earnings announcements. A stock that jumped last time will cause the market makers to increase the options premiums in the lead up to the next earnings announcement. Your aim is to time your entry just before this increase starts.

5. Buy ATM calls and puts. Extensive studies reveal that buying options with around one month to the earnings date and around two months to expiration, is the sweet spot for this strategy in terms of sample size and results. Even better results are achievable buying 3-4 weeks out front month options where the earnings date

is nearby (but before) the expiration date, but this will be a rarity in terms of sample size.

6. Statistically it pays to stay in for at least two weeks. Hopefully during that time the IV will start to move meaningfully, which typically will mean you'll be in profit. Statistically the odds also improve within two weeks of the earnings announcement. Again, it's preferable that the earnings date and expiration date are nearby, but there will be fewer opportunities like that.

The Pure Chart Pattern Setup Straddle:

Here you're looking to profit from a large move in the stock price. As with the other two straddle tactics, it's critical to ensure you are buying cheap implied volatility.

1. If you're sensitive to paying high premiums then choose stocks from \$15.00 to \$60.00.
2. Try to keep the bid/ask ratio down to below 4% at the most, preferably lower.
3. The stock should be forming a setup that may result in a large and quick move. Such setups include key reversals (like doji bars or railroad tracks at 20-day extreme prices) or consolidation patterns such as flags, where the price bars have become tighter and where price volatility has clearly contracted, hopefully in advance of a big move in either direction.
4. For this strategy you'll be focusing on 3-month expiration options. Before placing your straddle trade, check that the relevant implied volatility is within the lower end of its typical outside-earnings range. To trade straddles you should be able to view a chart of implied volatility for the appropriate time to expiration (www.optioneasy.com).

For example, if you're trading a straddle with options that have 3-months to expiration, you want to assess implied volatility for options with a similar time frame to expiration, say 2-4 months, rather than the 1-month to expiration equivalent which will be much more sensitive.

Ideally, in advance of the trade you want to see implied volatility relatively low compared to itself over time and especially compared with similar times in the calendar as the one you're trading. The hope is that the stock will move significantly in either direction, and implied volatility will rise after you're in the position.

5. Buy ATM calls and puts with the expiration at least two months away, - preferably three. You can get away with four months if nothing else is - available. A three-month option will be impacted by the typical post-earnings decline in implied volatility less severely than a one-month option which will also be severely impacted by time decay.
6. The cost of the straddle should be less than half of the stock's recent high less its recent low. By recent, I mean the last 40 trading days for a two-month straddle, the last 60 trading days for a three-month straddle, or the last 80 days for a four-month straddle. The point here is that the cost of the straddle should be low in comparison with the potential the stock has shown itself to move.
7. Avoid holding the position during the final month before expiration. In the final month, options suffer from accelerating time decay, which would therefore erode your position.

8. If the stock moves decisively in one direction such that one side is already making the entire trade profitable, you can use a ‘dynamic trailing stop’ to trail the stock in steps and protect the profits that you’re sitting on.

It’s important to follow the entry and exit rules for the different straddle tactics, and psychologically speaking, the straddle can be a challenging strategy to manage once you’re in it. It’s very easy to find reasons to deviate from the plan. But you must remember that you got in for a certain reason (or reasons), and you must stay in until one of your other reasons compels you to exit.

Straddle Example

The following is an example of a trade I made which started with the intention of an earnings surprise tactic, but ended up as more of a pre-earnings-in-and-out.

EXPE was trading at \$34.00 on 12 March 2003.

The stock had just split that day and a second Gulf war was a distinct possibility. I didn’t know precisely what was going to happen but I knew something was likely to happen very soon. I also didn’t know what the effect of war would be on a stock like Expedia, but I did anticipate there would be a profound effect either way, because Expedia was in the travel sector, which typically would react sharply to geopolitical events. Whatever the case, I was expecting something dramatic to happen within a week, else I’d exit the position.

Unfortunately, the only options available were either the April options with just five weeks left to expiration, or the July options, with over four months left to expiration.

Here were the possible straddle tactics:

Trade A

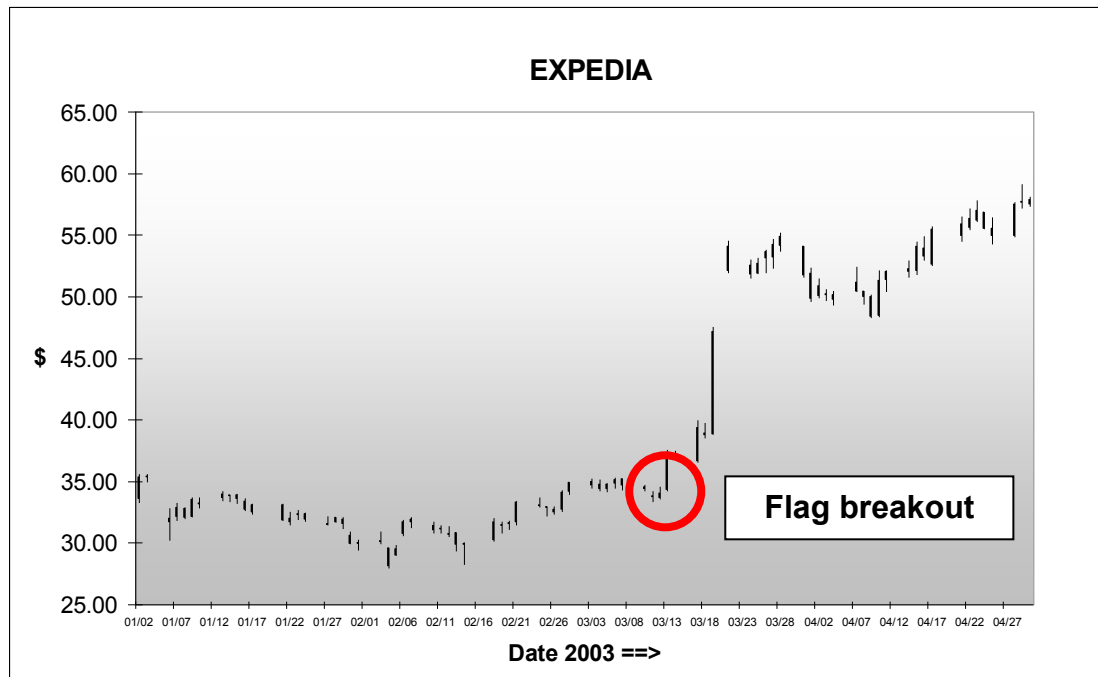
(i)	Buy 10 EXPE 35.00 strike April puts at 2.85	\$2,850
(ii)	Buy 10 EXPE 35.00 strike April calls at 1.85	\$1,850
	Net investment	\$4,700

Trade B

(i)	Buy 10 EXPE \$35.00 strike July puts at 4.60	\$4,600
(ii)	Buy 10 EXPE \$35.00 strike July calls at 3.60	\$3,600
	Net investment	\$8,200

The July expiration gave a lot more time, but was double the price. The April expiration was a bit too close for a typical ‘earnings surprise’ tactic, but I was looking to be in and out of this trade within a week to ten days maximum. At the respective expirations, the breakevens would be \$30.30 and \$39.70 for the April straddle; and \$26.80 and \$43.20 for the July straddle. But I was never going to hold on for expiration here in any case.

Here was the chart of EXPE during the lifetime of the trade.



Now let's take this scenario day by day, as it actually happened:

Literally, on 13 March, Expedia started to move (over 3 points) and I was very happy!

The April calls were now up to 3.90 and the puts are down to 1.70 at the bid. If you were to unravel the position, you would receive 5.60 for it. That's a profit of over 19% in just one day! The July straddle was up a little less and on a much higher cost base, but still is up over 8.5% in a day. Still not bad! What would you do in this scenario? Hold on for more, or take profits now?

13 March – EXPE rises to \$37.27

Trade components	Original Cost (Ask)	Position if Exited (Bid)	
Stock now at \$37.27	put + call = position cost	put + call = position value	P / (L)
A. April straddle	2.85 + 1.85 = 4.70	1.70 + 3.90 = 5.60	+\$0.90
B. July straddle	4.60 + 3.60 = 8.20	3.50 + 5.40 = 8.90	+\$0.70

Moving on a couple of days, the stock continues to make progress. Notice how, as the stock rises, the puts fall and the calls rise, just as you'd expect. Now my profits were over 43% for the April straddle and 25% for the July straddle, all in just 4 days!

17 March – EXPE rises to \$39.38

Trade components	Original Cost (Ask)	Position if Exited (Bid)	
Stock now at \$39.38	put + call = position cost	put + call = position value	P / (L)
A. April Straddle	2.85 + 1.85 = 4.70	1.15 + 5.60 = 6.75	+2.05
B. July Straddle	4.60 + 3.60 = 8.20	2.85 + 7.40 = 10.25	+2.05

Let's move on just two more days to 19 March. The stock now jumps to \$47.13 on news of a takeover. The April straddle was now up a whopping 150% and the July straddle over 65% in just one week!

19 March – EXPE rises to \$47.13

Trade components	Original Cost (Ask)	Position if Exited (Bid)	
Stock now at \$47.13	put + call = position cost	put + call = position value	P / (L)
A. April Straddle	2.85 + 1.85 = 4.70	0.10 + 11.60 = 11.70	+7.00
B. July Straddle	4.60 + 3.60 = 8.20	0.90 + 12.70 = 13.60	+5.40

We'll move on just two more days so you can see the full extent of this. The April straddle was making \$14.15 of pure profit (300%) and the July straddle was making \$11.30 profit (almost 140%).

21 March – EXPE rises to \$54.09

Trade components	Original Cost (Ask)	Position if Exited (Bid)	
Stock now at \$54.09	put + call = position cost	put + call = position value	P / (L)
A. April Straddle	2.85 + 1.85 = 4.70	0.05 + 18.80 = 18.85	+14.15
B. July Straddle	4.60 + 3.60 = 8.20	0.50 + 19.00 = 19.50	+11.30

The question is: which straddle should I have traded and when should I have exited?

The truth is that I bought the July straddle and exited after just one day with around 10% in profit. Had I waited just one week, I'd have been sitting on a great deal more. The reason I exited was because I was due to travel and I unravelled all my positions due to the uncertain climate at the time.

This was a far-from perfect trade. I started with the clear intention of trading the longer term expiration and holding through earnings for the surprise. But I did break some rules on the way in, which is also partly why I exited early.

Here were the rules for this tactic and whether I adhered to them:

- | | | | |
|----|---|---|---|
| 1. | Consolidating price pattern in the stock. | ✓ | |
| 2. | stock price > \$20.00. | ✓ | |
| 3. | cost of straddle < $\frac{80\text{-day high} - 80\text{-day low}}{2}$ | ✗ | I broke this rule on the basis that the amount of news anticipated imminently on a global and sector level was compelling, and previous price movement wasn't going to be so important. |
| 4. | Time to expiration should be around three months, never less than two, and not more than four. | ✓ | The July expiration just sneaks in here! |
| 5. | Entry – within two weeks of a news event such as an earnings report or announcement pertinent to the stock or sector. | ✓ | Scheduled announcements were due both on a political and company level, as well as the fact that the stock had just split. |
| 6. | Exit – after news event. | ✗ | I broke this rule because of outside factors and that I'd made such an easy and quick profit already. |

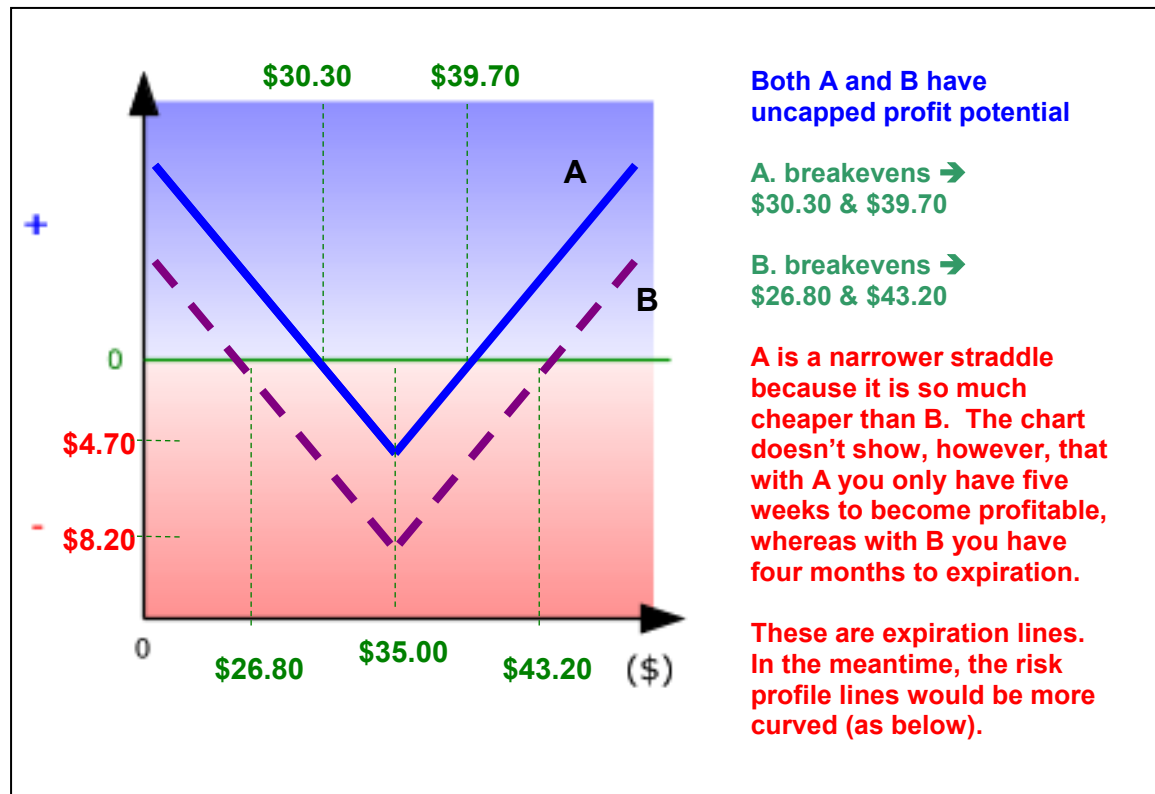
Straddles can be challenging from a psychological point of view. Although the rules are clearly defined, it takes discipline to hold your nerve.

As mentioned earlier, straddles are now a more refined art because of the pre-earnings IV rush and post-earnings IV crush. This phenomenon is something I have dedicated a lot of research to.

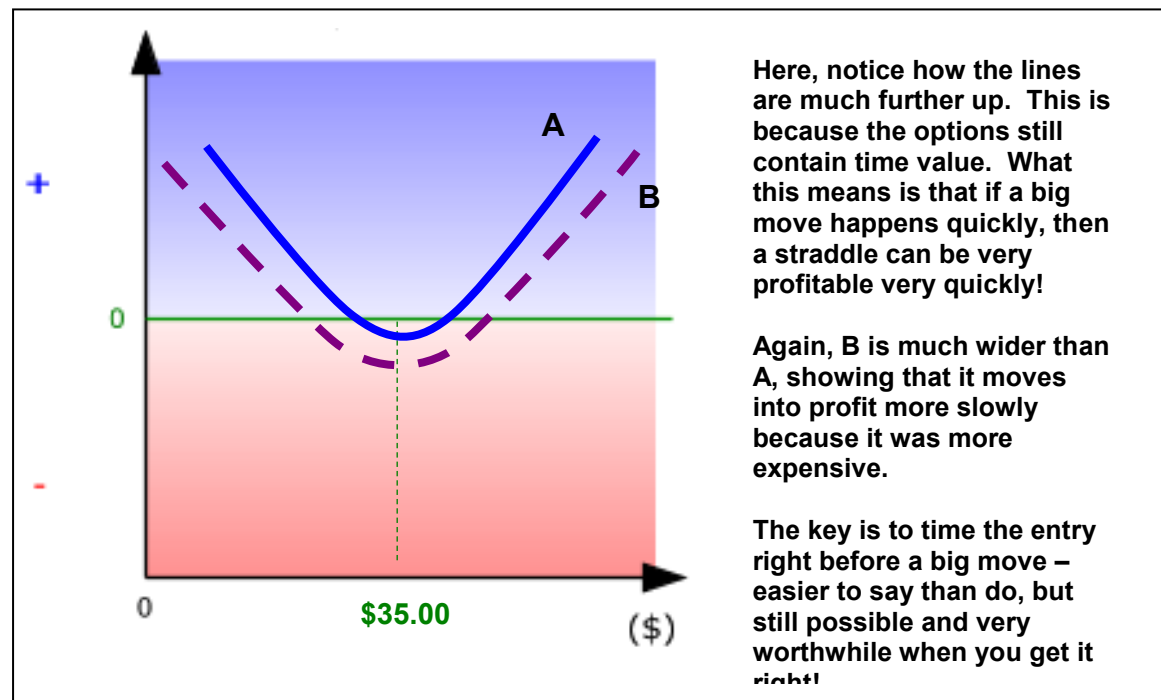
The key to enjoying straddles is to keep that risk down, and to achieve that you need to be buying relatively cheap implied volatility.

We can summarize the two EXPE straddles at expiration as follows:

Straddle A ————— Straddle B - - - - -



Here are the same trades, but instead the risk profile lines are taken just a few days into the trade, with plenty of time still left to expiration. These are not be precise because the options still contain time value, but should give you an idea of how I was able to exit with such great profits so early.



Here is a definitive summary guide for straddles:

5.3.1 Description

Steps to Trading a Straddle

1. Buy ATM put
 2. Buy ATM call with same expiration date
- For an earnings surprise straddle buy ATM strike calls and puts, preferably with about three months to expiration.
 - For a pre-earnings in-and-out straddle, buy second month ATM calls and puts a month or so before the earnings date. If the earnings date closely precedes the expiration date, and is at least three weeks away from the trade entry date, this can be even more preferable, albeit there will be fewer opportunities.
 - For a chart pattern straddle buy ATM strike calls and puts, preferably with about three months to expiration.

Steps In:

- Actively seek key reversal or consolidation chart patterns as these can often herald an imminent and large move in the stock.
 - ✓ If playing for an earnings surprise choose stocks that are reporting within two weeks but where the 3-month implied volatility has not yet risen outside its normal range.
 - ✓ If playing for a pre-earnings in-and-out choose stocks that are reporting in a month or so the next month but where the implied volatility has not yet started its pre-earnings rise.
 - ✓ If playing a chart setup straddle choose stocks where the 3-month implied volatility is low compared to itself over time.
- Choose a stock price range you feel comfortable with. For some traders, that's between \$15.00 and \$60.00.

Steps Out

- Manage your position according to the rules defined in your trading plan.
 - ✓ If playing for an earnings surprise which fails to materialize exit a few days after the news event occurs.
 - If the surprise occurs and the stock price reacts to make the straddle profitable, use a dynamic trailing stop to shadow the stock as it hopefully continues to move favorably.
 - If the stock thrusts up and then retraces to hit your dynamic stop, you can consider selling the (profitable) call leg only, and then removing the trailing stop in order to hopefully profit from the put.
 - If the stock thrusts down, and then retraces to hit your dynamic stop, you can consider selling the (profitable) put leg only, and then removing the trailing stop in order to hopefully profit from the call.
 - In any case avoid holding into the last month; otherwise you'll be exposed to serious time decay.
 - ✓ If playing for a pre-earnings in-and-out which fails to materialize exit just before the earnings is announced. Be sure to know what time of day earnings is being announced.
 - If the trade is already profitable within two weeks of the earnings date, statistics show that around 20% is a good profit, so don't be greedy!
 - ✓ If playing for a price breakout which fails to materialize do not hold into the final month before expiration.
 - If the stock price moves to make the straddle profitable, use a dynamic trailing stop to shadow the stock as it hopefully continues to move favorably.

- If the stock thrusts up and then retraces to hit your dynamic stop, you can consider selling the (profitable) call leg only, and then removing the trailing stop in order to hopefully profit from the put.
- If the stock thrusts down, and then retraces to hit your dynamic stop, you can consider selling the (profitable) put leg only, and then removing the trailing stop in order to hopefully profit from the call.
- In any case avoid holding into the last month; otherwise you'll be exposed to serious time decay.

5.3.2 Context

Your Outlook

- Regardless of the specific tactic, with straddles, your outlook is **direction neutral**. You are looking for increasing implied volatility and hopefully the stock price moving explosively in either direction.

Rationale

- To execute a direction-neutral trade for a capital gain while expecting a surge in volatility. Ideally you are looking to buy cheap options (low implied volatility), where the options are about to increase in value and the stock is about to make an explosive move - you just don't necessarily have a preferred direction.

Net Position

- This is a **net debit** transaction because you have bought calls and puts.
- Your maximum risk on the trade itself is limited to the net debit of the bought calls and puts. Your maximum reward is potentially unlimited on the call side, and unlimited on the put side until the stock reaches zero.

Effect of Time Decay

- Time decay is harmful to the straddle.
- For earnings surprise straddles do not keep the position into the last month where time decay will be accelerating against you.
- For pre-earnings in-and-out straddles, typically do not keep the position beyond the earnings announcement.
- For non-earnings related straddles do not keep the position into the last month where time decay will be accelerating against you.

Appropriate Time Period to Trade

- You want to combine safety with prudence on cost. The optimum time period to expiration will depend on the specific tactic you're trading. Follow the pointers above in the Description and Steps sections.

Selecting the Stock

- Ideally, look for stocks where the OVI is persistently decisive in either direction, or completely indecisive and lurching between deep positive and deep negative.
- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Actively seek key reversal or consolidation chart patterns.
- Choose a stock price range you feel comfortable with.
- Suitable OptionEasy filters: bull flag; bear flag; reversal setups; OVI decisively persistent in either direction, or completely indecisive and lurching between deep positive or deep negative. You can also filter for earnings about to happen; low implied volatility; straddle cost vs. stock price movement.

Appropriate Chart Setups

- Up trends, bull flags, bowls, cup and handles, bullish breakouts through resistance, cup and handles, reverse head and shoulders.

Selecting the Option

- Choose options with adequate liquidity; open interest should be at least 100, preferably 500. Keep the bid/ask ratio as low as possible, preferably under 4% or lower. This is more likely to occur with higher volume options with higher open interest.
- **Strike:** ATM for both call and put (they share the same strike price).
- **Expiration:** Depends on the specific tactic. For earnings surprises and pure chart setup plays, preferably around 3-months. For a pre-earnings in-and-out play then the front month provided there are at least 3-weeks left to expiration. Use the same expiration for both legs.

5.3.3 Risk Profile

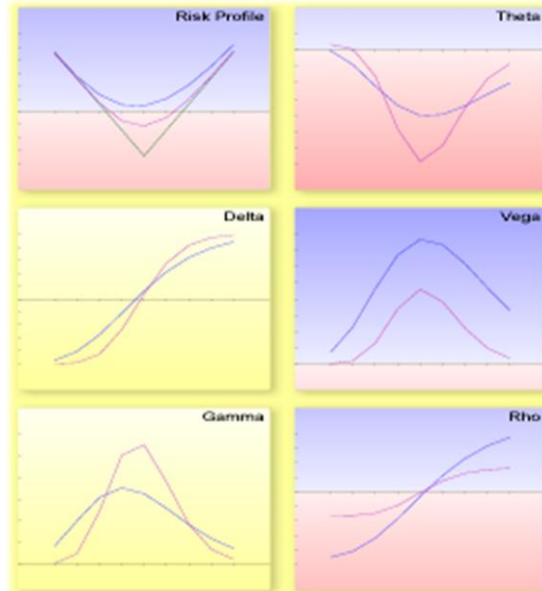
- **Max risk** call premium + put premium
- **Breakeven to downside** strike price + cost of trade
- **Breakeven to upside** strike price - cost of trade
- **Max reward** uncapped

5.3.4 Greeks

Key:
 Expiration
 Today - 3 months
 Time(t) - 1 month

Risk Profile

As the stock price moves up or down with conviction, the straddle becomes profitable.



Theta

Theta is negative, illustrating that time decay is harmful to the position. This is because you're a net buyer of options

Delta

Delta (speed) is at its extremes when the position is deep in profit on either side. When the position hasn't moved, delta is neutra.

Vega

Vega is positive, illustrating that volatility is helpful to the position. Volatility is particularly helpful at the strike price where we need a jump to kick-start our profits.

Gamma

Gamma (acceleration) peaks at the strike price, indicating the position's turning point and the most sensitive point of the strategy.

Rho

Higher interest rates are generally helpful to the position when the stock price rises, and vice versa.

5.3.5 Advantages and Disadvantages

Advantages

- Profit from a volatile stock moving in either direction.
- Capped risk.
- Uncapped profit potential if the stock moves.

Disadvantages

- Expensive because you have to buy the ATM call and put.
- Significant movement can be required to make a profit.
- The bid/ask spread can adversely affect the quality of the trade.
- The straddle can be a psychologically demanding strategy.

Summary

Straddles are fun strategies to trade and can be immensely rewarding. There are difference nuances so you must know your specific tactic from the outset of the trade. Great straddle opportunities don't come around every day and you'll find that they're like the proverbial bus. None for a while and several come along at the same time! That's the nature of earnings season, and it's earnings season that often provides the best opportunities for this type of strategy.

In terms of what sector to look for opportunities in, it makes sense to trade straddles in stocks within a sector that has the capability of moving quickly. Anything to do with pharmaceuticals and drugs can yield great straddle opportunities provided the implied volatility is low enough from the outset. Mid-cap companies (\$500m to \$2bn market capitalization) can have that balance of low bid/ask spreads combined with the ability to move dramatically. Remember, you don't care about the direction; all you care about is that the share price and/or implied volatility will move big.



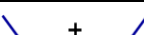
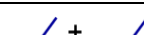

If you stick to the rules we've talked about here, you won't go far wrong and you'll become consistently successful at trading this exciting strategy. Don't look too hard for the trade. If it's not an obvious straddle candidate then wait for one that is. Don't force the issue. If the chart pattern isn't shaping up as a consolidation or reversal, if the relevant expiration implied volatility isn't relatively low, if the straddle costs too much compared with the stock price's potential for movement – for any of these reasons you can sit tight and wait for a better trade.






Now it's time to answer some more questions. You're armed to enter the world of options with confidence and explore the opportunities. Consider what you've learned on this course and be excited that it's only the beginning of your journey. Trading is a continuous learning process. The more you do the, more you'll learn. Experience is the ultimate teacher. With the tools and material in this course, you are now armed to get experience safely and stay in the game for as long as you choose. The longer you're in it, the better trader you'll become.

I want to take this opportunity to thank you for completing the course. I hope we'll see you either on the site, www.optioneasy.com or at one of our courses where you can expand your practical trading skills with other dynamic individuals.

Q&As

12	Name the component parts to creating a straddle.	
A	Buy a call and put with same exercise price and different expiration dates	
B	Buy a lower exercise put and higher exercise call with the same expiration date	
C	Buy call and put with same exercise price and expiration date	
D	Sell a lower exercise put and higher exercise call with the same expiration date	
E	Sell call and put with same exercise price and expiration date	

13	Select the drawn components of creating a straddle	
A		
B		
C		
D		
E		

14	What does a straddle risk profile look like?	
A		
B		
C		
D		
E		

15	What is your outlook for a straddle?	
A	Looking for large price movement (increasing volatility) in either direction	
B	Conservatively bearish	
C	Low volatility (rangebound price action)	
D	Aggressively bullish	
E	Conservatively bullish	

16	What is the rationale for a straddle?	
A	Low cost, high potential reward if underlying asset price remains rangebound	
B	Capped risk, unlimited potential reward if underlying asset price moves in large swings in either direction	
C	Unlimited risk, low cost, high potential reward if underlying asset price moves in large swings in either direction	
D	Unlimited risk, low cost, high potential reward if underlying asset price remains rangebound	
E	Unlimited risk, high cost, high potential reward if underlying asset price remains rangebound	

17	You enter into a straddle trade. The stock price is \$51.33. You buy the December 50.00 strike put for 4.12 and buy the December 50.00 strike call for 5.38. What is your maximum risk?	
A	1.26	
B	9.50	
C	10.83	
D	8.17	
E	Unlimited	

18	You enter into a straddle trade. The stock price is \$51.33. You buy the December 50.00 strike put for 4.12 and buy the December 50.00 strike call for 5.38. What is your potential reward?	
A	1.26	
B	9.50	
C	10.83	
D	8.17	
E	Unlimited	

19	You enter into a straddle trade. The stock price is \$51.33. You buy the December 50.00 strike put for 4.12 and buy the December 50.00 strike call for 5.38. What is your breakeven at expiration?	
A	\$44.62 and \$54.12	
B	\$45.88 and \$55.38	
C	N/A	
D	\$40.50 and \$59.50	
E	\$45.25 and \$54.25	

20 What is the effect of time decay on a straddle?	
A	Time Decay is generally helpful
B	Time Decay is generally harmful
C	Time Decay is generally helpful when the position is profitable and harmful when the position is unprofitable
D	Time Decay is generally helpful when the position is unprofitable and harmful when the position is profitable
E	Time Decay does not affect the strategy

21 What is the delta for a straddle?	
A	Delta is generally positive
B	Delta is generally negative
C	Delta is generally positive when the position is profitable and negative when the position is unprofitable
D	Delta is generally positive when the position is unprofitable and negative when the position is profitable
E	Delta is neutral around the strike price

22 How does increasing volatility affect a straddle?	
A	Increased volatility is generally helpful, particularly around the strike price
B	Increased volatility is generally harmful, particularly around the strike price
C	Increased volatility is generally helpful when the position is profitable and harmful when the position is unprofitable
D	Increased volatility is generally helpful when the position is unprofitable and harmful when the position is profitable
E	Increased volatility does not affect the strategy

Answers to Q&As

Chapter 1

Q	A	Explanation
1	C	
2	D	Option prices are also referred to as premiums.
3	A	
4	C	
5	E	An American style option can be exercised any time before or at its expiration date.
6	B	
7	C	Buying an option gives you the right....
8	A	Selling an option gives you the obligation.
9	B	
10	C	
11	D	
12	C	
13	B	
14	D	
15	E	
16	A	The call premium is \$3.55 of which Intrinsic Value is \$1.45, so Time Value must be \$2.10.
17	B	The call premium is \$3.55 of which Intrinsic Value is \$1.45 because the stock price is greater than the strike price by \$1.45.
18	D	There is no Intrinsic Value here, so it must all be Time Value.
19	E	There is no Intrinsic Value here, so the answer is zero.
20	E	There is no Intrinsic Value here, so it must all be Time Value.
21	D	There is no Intrinsic Value here, so the answer is zero.
22	B	The put premium is \$8.43 of which Intrinsic Value is \$2.44, so Time Value must be \$5.99.

23	C	The put premium is \$8.43 of which Intrinsic Value is \$2.44 because the stock price is greater than the strike price by \$2.44.
24	E	
25	C	There is no Time Value left at expiration, so the answer must be Intrinsic Value.

Chapter 2

Q	A	Explanation
1	E	Technical Analysis is the study of price charts
2	C	
3	B	The OVI is used to analyze stocks but is derived from options data
4	A	
5	D	
6	A	
7	B	
8	C	
9	A	
10	A	
11	A	
12	E	
13	D	Consolidation patterns occur when price action becomes tighter
14	E	
15	E	Reversal patterns occur when prices move in the opposite direction
16	D	
17	D	Continuation patterns occur when prices continue to move in line with the trend
18	E	
19	B	

20	C	
21	C	
22	B	
23	D	The OVI can be used to identify potential 'informed' trading activity.
24	C	
25	B	

Chapter 3

Q	A	Explanation
1	C	
2	A	
3	E	
4	B	
5	D	
6	C	
7	E	Stocks don't have expirations so time decay isn't a factor
8	B	
9	B	
10	E	The delta of buying a share is 1. As the share price moves up \$1.00, your position moves up \$1.00.
11	D	The delta of shorting a share is -1. As the share price moves up \$1.00, your position moves down \$1.00.
12	A	
13	B	
14	C	Gamma only applies to the option position.
15	C	
16	C	
17	E	Vega only applies to the option position.

18	A	
19	A	
20	A	
21	D	
22	B	Buying OTM options completely exposes you to time decay because OTM options have no intrinsic value.
23	D	Historical Volatility refers to the underlying asset
24	B	Implied Volatility is derived from the option premium

Chapter 4

Q	A	Explanation
1	E	
2	B	
3	E	
4	E	
5	C	
6	C	$[\$87.67 - 7.33] = \80.34
7	A	$\$7.33 + [90.00 - \$87.67] = \$9.66$
8	B	$[\$87.67 - 7.33] = \80.34
9	D	
10	C	
11	B	
12	D	
13	E	
14	E	
15	A	
16	A	$\$112.50 + \$20.50 - \$110.00 - 23.00 = \0.00

17	E	$\$130.00 - \$110.00 - \$0.00 = \20.00
18	B	There is no risk with this trade, so there is no breakeven as such.
19	D	
20	D	
21	A	
22	D	$[\$100.00 - \$7.55] = \$92.45$
23	B	\$7.55, ie just the premium received.
24	D	$[\$90.00 - \$8.25] = \$81.75$

Chapter 5

Q	A	Explanation
1	D	You've created a Synthetic Call.
2	B	$\$20.50 + [\$112.50 - \$110.00] = \23.00
3	E	
4	D	$[\$110.00 + \$20.50] = \$130.50$
5	E	It is a Synthetic Call
6	A	A Synthetic Call looks like the same shape as a Long Call. The leverage implications are quite different however.
7	D	
8	E	
9	A	
10	E	Buy stock and buy put
11	B	Time decay is harmful because you are long (put) options
12	C	
13	C	
14	E	
15	A	

16	B	
17	B	$[\$4.12 + \$5.38] = \$9.50$
18	E	
19	D	$[\$50.00 - \$9.50] = \mathbf{\$40.50}$; and $[\$50.00 + \$9.50] = \mathbf{\$59.50}$
20	B	Time decay is particularly harmful because you are long both calls and puts
21	E	Buying an ATM call (delta 0.5) and an ATM put (delta -0.5) gives you a delta neutral position when you enter the position. The delta will change as the stock price moves.
22	A	Once you're in the straddle trade, you want increasing volatility in the stock, so that your options become more valuable.

Glossary

American Stock Exchange (AMEX)	Securities Exchange that handles approximately 20% of all securities trades within the US.
American-style option	An option contract that can be exercised at any time before the expiration date. Stock Options are American Style.
Arbitrage	Where the simultaneous purchase and disposal of a combination of financial instruments is such that a guaranteed profit is made automatically.
Ask	The price that you buy at and the price that market makers and floor brokers are willing to sell at. The Ask stands for what the market makers and floor traders ask you to pay for the stock (or options or other instrument).
ATM (At the Money)	Where the option exercise price is the same as the asset price.
At the Opening Order	An order that specifies execution at the market opening or else it is cancelled.
Automatic Exercise	The automatic exercise of an ITM (in the money) option by the clearing firm at expiration
Backspread	A spread where more options (calls or puts) are bought than sold. (the opposite of a Ratio Spread).
Bear Call Ladder	A strategy using calls where the trader sells a lower strike call, buys a higher strike call and another higher strike call.
Bear Call Spread	A bearish net credit strategy using calls where the trader buys a higher strike call and sells a lower strike call. The higher strike call will be cheaper, hence the net credit. Bear Call spreads have limited risk and reward and are more profitable as the underlying asset price falls.
Bear Put Ladder	A spread using puts where the trader sells a lower strike put, buys a higher strike put and another higher strike put.
Bear Put Spread	A net debit spread only using puts where the trader buys a higher strike put and sells a lower strike put. The higher strike put will be more expensive, hence the net debit. Bear Put spreads have limited risk and reward and are more profitable as the underlying asset falls.
Bid	The price the trader sells at and the price that market makers and floor traders are willing to buy at. [the Bid stands for the price at which the market maker will bid for your stock (or options, or other instrument)]
Bid - Ask Spread	The difference between the bid and asked prices. Generally you will buy at the Ask and Sell at the Bid. The Ask is always higher than the Bid.
Blow off Top	A large rise in price followed by a quick drop. Often accompanied with high volume. Usually a technical indicator for the end of a bullish trend.
Bond	A debt financial instrument used by Governments and corporate

entities in order to raise capital. The bond obliges the organization to pay its holders a fixed rate of return (coupon) and repay the principal of the debt at maturity. These 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 to be, the more valuable the bond will be.

Breakeven	The point(s) at which a risk profile of a trade equals zero.
Breakout	Where a price chart emerges upwards beyond previous price resistance.
Broker	A person who charges commission for executing a transaction (buy or sell) order.
Bull	Someone who expects the market to rise.
Bull Call Ladder	A spread only using calls where the trader buys a lower strike call, sells a higher strike call and another higher strike call.
Bull Call Spread	Long term bullish strategy involving buying low strike calls and selling same number of higher strike calls with the same expiration date.
Bull Market	A rising market over a period of time (usually a few years).
Bull Put Ladder	A spread using puts where the trader buys a lower strike put, sells a higher strike put and another higher strike put.
Bull Put Spread	Short term bullish strategy involving buying lower strike puts and selling higher strike puts with the same expiration date.
Butterfly Spread	3-legged direction-neutral low volatility strategies involving either all call legs or all put legs. Suitable for rangebound stocks.
Buy on close	An order stipulating to buy the security at the close of the trading session.
Buy on open	An order stipulating to buy the security at the opening of the trading session.
Buy Stop	A buy order where 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 then the security will continue to rise.
Buy-Write	A bullish strategy involving buying a stock and selling near term ATM or OTM call options to generate regular income. See Covered Call.
CAC 40 Index	The Paris Bourse index based on 40 stocks.
Calendar Spread	2-legged option trade involving buying a long term option and selling a shorter term option with the same strike price. A Calendar Spread must involve either all call or all put legs, you cannot mix calls and puts together for this strategy.
Call Option	The right, not the obligation to buy an underlying security at a fixed price before a predetermined date.
Call Premium	The price of a call option.
Call Ratio Backspread	Bullish strategy involving selling 1 or 2 lower strike calls and buying 2 or 3 higher strike calls.

Capital Gain	The profit realised from buying and selling an asset
Capital Loss	The loss taken from buying and selling an asset unprofitably.
Chicago Board Options Exchange (CBOE)	The largest options exchange in the world.
Chicago Board of Trade (CBOT)	The oldest commodity exchange in the US. Known for listings in T-bonds, notes and a variety of commodities.
Chicago Mercantile Exchange (CME)	An exchange in which many types of futures contracts are traded in an open outcry system.
Class of options	Options of the same type, style and underlying security.
Clearing House	A separate institution to establish timely payment and delivery of securities.
Close	The last price quoted for the day.
Closing Purchase	A transaction which closes an open short position.
Collar	A low risk bullish strategy involving buying a stock, buying near the money puts and selling out of the money calls.
Closing Sale	A transaction which closes an open long position.
Commission	A charge made by the broker for arranging the transaction.
Commodity	A tangible good that is traded on an exchange. Eg oil, grains, metals.
Commodity Futures Trading Commission (CFTC)	An institution charged with ensuring the efficient operation of the futures markets.
Condor	See Condors
Consumer Price Index (CPI)	An index measuring the change in prices of consumer prices. An important inflation indicator.
Contract	A unit of trading for an option or future.
Correction	A post rise decline in a stock price or market.
Covered Call	A bullish strategy involving buying or owning a stock and selling near term ATM or OTM calls to generate regular income. See "Buy-Write".
Covered Put	A bearish strategy involving shorting stock and shorting a near term put option to create regular income. Considered a high risk strategy.
Covered Short Straddle	A bullish strategy involving buying (or owning a stock), selling near term puts and calls at the same strike price and expiration date. This is a risky strategy, involving almost certain exercise of the put or call and a significant downside risk if the stock price falls.
Covered Short Strangle	A bullish strategy involving buying (or owning a stock), selling near term OTM puts and OTM calls at the same expiration date. This is a risky strategy, involving significant downside risk if the stock price falls.
Credit Spread	Where the simultaneous buying and selling of options creates a net credit into your account (ie you receive more for the ones you sell than those you buy).

Day Order	An order good for the day only.
Day Trade	The acquisition and disposal of an asset in the same day.
Day Trading	A trading style where positions are closed by the end of every day.
Debit Spread	Where the simultaneous buying and selling of options creates a net debit from your account (ie you pay more for the ones you buy than those you sell).
Deep In the Money (DITM) Calls	Where the price of the underlying security is far greater than the Call Strike Price.
Deep In the Money (DITM) Puts	Where the price of the underlying security is far less than the Put Strike Price.
Delayed time quotes	Quotes which are delayed from real time.
Delta	The amount by which an option premium moves divided by the dollar for dollar movement in the underlying asset.
Delta Hedge	A strategy designed to protect the investor against directional price changes in the underlying asset by engineering the overall position delta to zero.
Delta Neutral	Where a spread position is engineered so that the overall position delta is zero.
Derivative	A financial instrument whose value is "derived" in some way from the value of an underlying asset source.
Diagonal Spread	2-legged option trade involving buying a long term option and selling a shorter term option with a higher strike price. A Calendar Spread must involve either all call or all put legs, you cannot mix calls and puts together for this strategy.
Discount Brokers	Low commission brokers who simply place orders, and do not provide advisory services.
Divergence	Where 2 or more indicators move in different directions indicating different outcomes.
Dividend	A payment made by an organization to its owners (shareholders), hopefully from profits.
Dow Jones Industrial Average (DJIA)	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.
Downside Risk	The potential risk of a trade if prices decline.
End of Day	The close of the trading day when prices settle.
EPS	Earnings per share. The amount of profits of an organization divided by the number of outstanding shares.
Equity Options	Same as Stock Options
European Style	An option which cannot be exercised before the expiration date.

Option

Exchange	Where an asset or derivative is traded.
Exchange Rate	The price at which one currency can be converted into another currency.
Execution	The process of completing an order to trade a security.
Exercise	The activation of the right to buy or sell the underlying security.
Exercise (Strike) Price	The price at which an asset can be bought or sold by the buyer of a call or put option.
Expiration	The date at which the option's ability to be exercised ceases.
Expiration Date	The last day on which an option can be exercised.
Extrinsic Value (Time Value)	The price of an option less its intrinsic value. Out of the Money Options are entire made up of Extrinsic (or Time) Value.
Fair Market Value	An asset's value under normal circumstances.
Fair Value	The theoretical value calculation of an option using a pricing technique such as Black-Scholes options pricing formula.
Fibonacci Retracement	Where prices on a chart move off their latest tops or bottoms in swings of 38%, 50% or 62% from their previous bottoms or tops before resuming their original trend direction. 50% is the most common and easiest to spot.
Fill	An order which has been executed.
Fill Order	An order which must be filled immediately or cancelled.
Fill or Kill	An order where a precise number of contracts must be filled or the order is cancelled.
Floor Broker	A member of an exchange who is paid to execute orders.
Floor Trader	An exchange member who trades on the floor of the exchange for their own account.
Fundamental Analysis	Analysis of a stock security which is based on the ability of the organization to generate profits for its shareholders. Such analysis embraces earnings, PE Ratios, EPS, Net Assets, Liabilities, Customers etc.
Futures Contracts	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 fulfil their part of the bargain.
Gamma	The speed by which Delta changes compared with the speed by which the underlying asset is moving.
Gap	Where the opening bar of a price chart opens and stays beyond (lower or higher) than the spread of the previous bar. Gaps can be lower or higher.

Good till Cancelled Order (GTC)	An order which continues until either it is filled or cancelled specifically by the trader.
Guts	A volatility strategy involving buying In the Money (ITM) Calls and ITM Puts. High volatility is required, after the position is opened, to make this a profitable strategy.
Hedge	A term for reducing the risk of one position by taking other positions with options, futures or other derivatives.
Historic Volatility	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.
Index	A group of assets (often in a similar class of sector or market capitalisation) which can be traded as a single security.
Index Options	Options on the indexes of stocks or other securities.
Interest Rates	The rate at which borrowed money is charged by the lender, usually annualised into a percentage figure.
In the Money (ITM)	Where you can exercise an option for a profit.
In the Money (ITM) Calls	ITM Calls are where the current stock price is greater than the Call Strike Price.
In the Money (ITM) Puts	ITM Puts are where the current stock price is less than the Put Strike Price.
Intrinsic Value	The amount by which an option is in the money.
Iron Butterfly	See Iron Butterflies
Japanese Candlesticks	A popular method of visually depicting price bars where the open, high, low, close are shown explicitly. Upward moving price bars are hollow (or green if different colours are used). Downward moving price bars are filled (or red). Different looking bars and different clusters of price bars can lead to different interpretations of future price movements.
LEAPs	Long-term Equity Anticipation Securities. These are long term stock options with expirations up to 3 years in the future. LEAPs are available in Calls and Puts and are American-style traded options.
Leg	One side or component of a spread
Leg in / Leg out	Legging into a spread entails the completion of just one component part of a spread with the intention of completing the other component parts at more favourable prices later on. Legging out of a spread entails the opposite whereby you exit your spread one component part at a time with the intention of doing so at more favourable prices as the underlying security moves in the anticipated direction.

LIFFE	London International Financial Futures and Options Exchange.
Limit Order	An order to buy at a set price which is at or below the current price of the security. An order to sell at a set price which is at or above the current price of the security.
Liquidity	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.
Long	Being long means that you are a buyer of a security.
Long Call	Buying a call option.
Long Call Butterfly	A 3-leg direction-neutral, strategy, requiring low volatility, involving buying a low strike call, selling 2 middle strike calls with the same strike price and buying a higher strike call.
Long Call Condor	A 4-leg direction-neutral, strategy, requiring low volatility, involving buying a low strike call, selling 2 middle strike calls with different strike prices and buying a higher strike call.
Long Call Synthetic Straddle	A 2-leg direction-neutral, strategy, requiring high volatility, involving buying 2 ATM calls for every 100 shares (US stock options) sold, thereby replicating the risk profile of a Long Straddle.
Long Combo	A bullish strategy involving selling OTM puts and buying OTM calls in order to partially replicate a long stock position.
Long Iron Butterfly	A direction neutral strategy constructed by combining a Bull Put Spread with a Bear Call Spread or by combining a narrow Short Strangle with a wider Long Strangle.
Long Put	A bearish strategy, buying put options.
Long Put Butterfly	A 3-leg direction-neutral, strategy, requiring low volatility, involving buying a low strike put, selling 2 middle strike puts with the same strike price and buying a higher strike put.
Long Put Condor	A 4-leg direction-neutral, strategy, requiring low volatility, involving buying a low strike put, selling 2 middle strike puts with different strike prices and buying a higher strike put.
Long Put Synthetic Straddle	A 2-leg direction-neutral, strategy, requiring high volatility, involving buying 2 ATM puts for every 100 shares (US stock options) bought, thereby replicating the risk profile of a Long Straddle.
Long Stock	Buying shares.
Long Synthetic Future	Buying calls and selling the same amount of puts with the same strike and expiration date, effectively forming the same risk profile of buying a stock but with almost no cost.
MACD (Moving Average Convergence Divergence)	Measures the difference between 2 moving averages and is a measure of momentum. As the moving averages drift apart then momentum is increasing and vice versa. Best viewed as a bar chart. Divergence between MACD and price action can indicate a change of trend is imminent.
Margin	An amount paid by the account holder (either in cash or "marginable

	securities" which is held by the brokerage against non cash or high risk investments, or where the brokerage has lent the account holder the means to undertake a particular trade.
Margin Account	An account where the brokerage lends the customer part of the net debit required to make a trade.
Margin Call	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.
Margin Requirements	The amount of cash or marginable securities (eg blue chip stocks) which an account holder must have in his account in order to write uncovered (or naked) options.
Mark to Market	The daily adjustment of margin accounts to reflect profits and losses in such a way that losses are not allowed to accumulate.
Market Capitalisation	The number of outstanding shares multiplied by the value per share.
Market if Touched (MIT) Order	An order that becomes a market order if the price specified is reached.
Market Maker	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.
Market on Close Order	An order that requires the broker to achieve the best price at the close or in the last 5 minutes of trading.
Market on Open Order	An order that must be executed at the opening of trading.
Market Order	Trading securities immediately at the best market prices in order to guarantee execution.
Market Price	The most recent transaction price.
Modified Call Butterfly	A neutral to bullish strategy similar to a Long Call Butterfly except that the OTM bought calls have a strike price nearer to the central strike price of the sold calls.
Modified Put Butterfly	A neutral to bullish strategy similar to a Long Put Butterfly except that the ITM bought puts have a strike price nearer to the central strike price of the sold puts.
Momentum	Where a market direction (up or down) is established.
Momentum Indicators	Technical Analysis indicators using price movement and volume in order to determine market direction.
Momentum Traders	Traders who use momentum as their primary tool to invest.
Moving Average	The average of a security's (or index's) latest prices for a specific period of time (eg 50 days). Another technical analysis tool.
Mutual Fund	An open-ended investment fund that pools investors' contributions to invest in securities such as stocks and bonds.

Naked	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.
NASDAQ	National Association of Securities Dealers Automated Quotations system. This is a computerised system providing brokers and dealers with securities price quotes.
Near the Money (NTM)	Where the underlying asset price is close to the Strike Price of an option.
New York Stock Exchange (NYSE)	The largest stock exchange in the US.
Note	A short term debt instrument - they normally mature in or less than 5 years.
OEX	Standard & Poor's 100 Stock Index.
Offer	The lowest price at which someone is willing to sell. Also can refer to the "Ask" of a "Bid-Ask" spread. See "Ask".
On the Money (At the Money)	See "ATM" or "At the Money".
Open Interest	The total number of options or futures contracts that are not closed or delivered on a particular day.
Open Outcry	Verbal system of floor trading still used at many exchanges (eg the CME and CBOT).
Opening	The beginning of the trading session at an exchange.
Opportunity Cost	The risk of an investment expressed as a comparison with another competing investment.
Option	A security which 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.
Option Premium	The price of an option.
Option Writer	The seller of an option (usually naked).
Out of the Money (OTM)	Where the option has no intrinsic value and where you cannot exercise an option for a profit.
Out of the Money (OTM) Calls	OTM Calls are where the current stock price is less than the Call Strike Price.
Out of the Money (OTM) Puts	OTM Puts are where the current stock price is greater than the Put Strike Price.
Par	The nominal value of a bond that is paid back to the bondholder at maturity.
Position Delta	The sum of all positive and negative deltas within a hedged trade position.

Premium	The price of an option.
Price Bar	The visual representation of a securities price fluctuations for a set period of time. Price bars can be for as little as 1 minute (or less) and as much as one year (or more).
Price Earnings Ratio	The price of a stock divided by the Earning per share for that stock. The same figure can be calculated by dividing the market capitalisation of a stock by the profit of that company.
Principal	The purchase price of a bond
Put Calendar	A neutral to bullish strategy involving buying longer expiration puts and selling shorter expiration puts with the same strike price.
Put Diagonal	A neutral to bullish strategy involving buying longer expiration puts and selling shorter expiration puts with a higher strike price.
Put Option	The right, not the obligation to sell an underlying security at a fixed price before a predetermined date.
Put Ratio Backspread	Bearish strategy involving selling 1 or 2 higher strike puts and buying 2 or 3 lower strike puts.
Quote	The price being bid or offered by a market maker for a security.
Ratio Backspread	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.
Ratio Call Spread	A bearish strategy that involves the trader being short in more options than those 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.
Ratio Put Spread	A bullish strategy that involves the trader being short in more options than those 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.
Real Time	Data which is updated and received tick by tick.
Relative Strength	A technical indicator comparing a security's price action as compared to that of an index or another stock.
Relative Strength Index (RSI)	A technical indicator which 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.
Resistance	A price threshold on a price chart which is thought to be difficult for the price to burst up through because of past price movements.
Return	The income profit on an investment, often expressed as a percentage.
Reversal Stop (or Stop and Reverse) Order	A stop order which, when activated, reverses the current position from long to short (or vice versa).
Rho	The sensitivity of an option price to interest rates. Typically, call options increase in value as interest rates rise and puts decrease in

	value as interest rates rise.
Risk	The potential loss of a trade.
Risk Free Rate	The Interest chargeable on Treasury Bills (T-Bills) is generally known as the Risk Free Rate and it is this rate which is used as a component part of the theoretical valuation of options model.
Risk Profile	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.
Seat	Membership in a stock or futures exchange.
Securities and Exchange Commission (SEC)	Organization which regulates the securities markets in order to protect investors.
Security	An instrument which can be traded - eg stocks, bonds etc.
Selling Short	Selling a security which you don't actually own beforehand. You will eventually have to buy it back, hopefully at a reduced price, thus making profit.
Series (options)	Option contracts of the same class (underlying asset), same Strike price and same Expiration date.
Shares	Units of ownership in a company or organization.
Short	Selling a security which you don't actually own.
Short Call	A bearish strategy involving the short selling of call options.
Short Call Butterfly	A 3-leg direction-neutral, strategy, requiring high volatility, involving selling a low strike call, buying 2 middle strike calls with the same strike price and buying a higher strike call.
Short Call Condor	A 4-leg direction-neutral, strategy, requiring high volatility, involving selling a low strike call, buying 2 middle strike calls with different strike prices and buying a higher strike call.
Short Call Synthetic Straddle	A 2-leg direction-neutral, strategy, requiring low volatility, involving selling 2 ATM calls for every 100 shares (US stock options) bought, thereby replicating the risk profile of a Short Straddle.
Short Combo	A bearish strategy involving buying OTM puts and selling OTM calls in order to partially replicate a short stock position.
Short Guts	A low volatility strategy involving selling In the Money (ITM) Calls and ITM Puts. Low volatility is required, after the position is opened, to make this a profitable strategy.
Short Iron Butterfly	A direction neutral strategy constructed by combining a Bull Call Spread with a Bear Put Spread or by combining a narrow Long Strangle with a wider Short Strangle.
Short Put	A bullish strategy, selling put options usually OTM (with a strike price below the current stock price).
Short Put Butterfly	A 3-leg direction-neutral, strategy, requiring high volatility, involving selling a low strike put, buying 2 middle strike puts with the same strike

	price and selling a higher strike put.
Short Put Condor	A 4-leg direction-neutral, strategy, requiring high volatility, involving selling a low strike put, buying 2 middle strike puts with different strike prices and selling a higher strike put.
Short Put Synthetic Straddle	A 2-leg direction-neutral, strategy, requiring low volatility, involving selling 2 ATM puts for every 100 shares (US stock options) sold, thereby replicating the risk profile of a Short Straddle.
Short Stock	Selling shares short.
Short Straddle	A low volatility direction neutral trade that involves simultaneously selling a call and put at the same strike price and with the same expiration date. Requires the underlying asset to be rangebound to make the trade profitable.
Short Strangle	A low volatility direction neutral trade that involves simultaneously selling a call and put at different strike prices (the put strike being lower than the call strike - ie both OTM) and with the same expiration date. Requires the underlying asset to be rangebound in order to make the trade profitable.
Short Synthetic Future	Selling calls and buying the same amount of puts with the same strike and expiration date, effectively forming the same risk profile of shorting a stock but with no net credit.
Short Selling	Selling a security which you don't actually own beforehand. You will eventually have to buy it back, hopefully at a reduced price, thus making profit.
Sigma	Sigma is generally a term used to represent volatility. It is generally represented as a percentage. The term "one sigma level" refers to the actual change in the underlying asset price.
Small-cap Stocks	Smaller (and sometimes newer) companies which are associated with high risk and high potential rewards. Can be illiquid to trade with large bid-ask spreads.
Speculator	A trader who aims to make profit by correctly assessing the direction of price movement of the security. Generally distinguished from investors in that speculators are associated with short term directional trading.
Spread	The difference between the bid and ask of a traded security. A trading strategy which involves more than one leg to create a (hedged) position. A price spread is the difference between the high and the low of a price bar.
Standard & Poor's (S&P)	A company that rates stocks and bonds and produces and tracks the S&P indices.
Stochastic	A technical indicator, which is an oscillator based on the relationship of the open, high, low, close of price bars.
Stock	A share of a company's stock is a unit of ownership in that company.
Stock Exchange or Stock Market	An organised market where buyers and sellers are brought together to trade stocks.
Stock Split	Where a company increases the amount of outstanding stock, thus increasing the number of shares, reducing the value per share. Generally a sign that the stock has been rising and













	management's way of assisting the liquidity in the stock.
Stop Orders	Buy Stops: where the order price is specified above the current value of the security. Sell Stops: where the order price is specified below the current value of the security.
Straddle	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.
Strangle	A neutral trade that involves simultaneously buying a call and put at different Strike prices (the Put Strike being lower than the Call Strike - ie both OTM) 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.
Strap	A neutral to bullish trade that involves simultaneously buying two calls and a put with the same strike price and expiration date. Requires the underlying asset to move in an explosive nature (preferably upwards) in order to make the trade profitable.
Strike Price (Exercise Price)	The price at which an asset can be bought or sold by the buyer of a call or put option.
Strip	A neutral to bearish trade that involves simultaneously buying two puts and a call with the same strike price and expiration date. Requires the underlying asset to move in an explosive nature (preferably downwards) in order to make the trade profitable.
Support	A price threshold on a price chart which is thought to be difficult for the price to fall down through because of past price movements.
Synthetic Call	Buying a share and a put, or going long a future and a put, replicating the risk profile shape of a Long Call.
Synthetic Put	Buying a call and shorting a stock or future, replicating the risk profile shape of a Long Put.
Synthetic Long Stock	Buying a call and shorting a put.
Synthetic Short Call	Shorting a put and shorting a stock or future.
Synthetic Short Put	Shorting a call and buying a stock or future.
Synthetic Short Stock	Shorting a call and buying a put.
Synthetic Straddle	Combining stocks (or futures) with options to create a delta neutral trade.
Technical Analysis	Using charts and charting techniques and indicators (such as prices, volume, moving averages, stochastics etc) to evaluate future likely price movement.
Theoretical Value (options)	The fair value calculation of an option using a pricing technique such as Black-Scholes options pricing formula.
Theta (decay)	The sensitivity of an option price to the variable of time. Remember
























	that options only have a finite life (until Expiration), therefore theta is an extremely important sensitivity to consider.
Tick	The least amount of price movement recorded in a security. Currently the lowest being 1/32, however moves to decimalisation will eliminate the fractions structure.
Time Premium	The non Intrinsic component of the price of an option.
Time Value (Extrinsic Value)	The price of an option less its intrinsic value. Out of the Money Options are entire made up of Extrinsic (or Time) Value.
Treasury Bill (T-Bill)	A short term government debt security with a maturity of no more than 1 year. The interest charged on these instruments is known as the Risk Free Rate.
Treasury Bond (T-Bond)	A fixed interest US government debt security with 10 years or more to maturity.
Treasury Note (T-Note)	A fixed interest US government debt security with between 1 to 10 years to maturity.
Triple Witching Day	The third Friday in March, June, September and December when US 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.
Type	The classification of an option - either a Call or a Put.
Uncovered Option	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.
Underlying Asset / Instrument / Security	An asset which is subject to purchase or disposal upon exercise.
Upside	The potential for a price to increase.
Vega	The sensitivity of an option price to volatility. Typically, options increase in value during periods of high volatility.
Volatility	The measure of the fluctuation in the price movement in an security over a period of time. Volatility is one of the most important components in the theoretical valuation of an option price. Historical Volatility: the standard deviation of the underlying security (closing) price movement over a period of time (typically 21-23 days) Implied Volatility: the calculated component derived from the option price when using the Black-Scholes Option Pricing model. Where there is a significant discrepancy between Implied and Historical Volatility then there is the opportunity for the trader to take advantage of this.
Volatility Skew	Whereby deep OTM options tend to have higher Implied Volatilities than ATM options. Where there are discrepancies, this, again gives the trader the opportunity to make trades whose profits are determined by volatility action as opposed to directional price action.
Volume	The number of underlying securities traded on their particular part of











the exchange. Where price direction and volume bars are aligned in the same direction then this is a bullish sign (ie it means that prices are rising with increased volume or that prices are falling with decreased volume). Where price direction diverges from volume bars then this is a bearish sign (ie prices rising with falling volume or prices falling with rising volume).











Whipsaw	Where a price swing ensures a losing scenario for both sides of a position.
Witching Day	When 2 or more classes of options and futures contracts expire.
Writer	Someone who sells an option.
Yield	The rate of return of an investment, expressed as a percentage.
Zeta	An option price's sensitivity to Implied Volatility.











Strategy Table









Strategy	Execution	Benefits	Disadvantages	Component Parts	Risk Profile
Long Call	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).		
Long Put	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).		
Short Call (naked)	Sell a call	Short term income strategy.	Uncapped risk and capped reward.		
Short Put (naked)	Sell a put	Short term income strategy.	Uncapped risk and capped reward.		
Covered Call	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.		
Collar	Buy stock, buy ATM put and sell OTM call	Can be a riskless strategy if executed correctly and with right stock.	Net debit out of your account. Works best for long-term trades where you leave it alone.		









Strategy	Execution	Benefits	Disadvantages	Component Parts	Risk Profile
Covered Put	Sell stock (short) and sell put	Net credit into your account.	Uncapped risk and capped reward.	 + 	
Synthetic Call	Buy stock and buy put	Capped risk and uncapped reward. Good insurance tactic.	Expensive strategy.	 + 	
Synthetic Put	Short stock and buy call	Capped risk and uncapped reward.	More complex than simply buying puts.	 + 	
Covered Short Straddle	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.	 +  + 	
Covered Short Strangle	Buy stock, 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.	 +  + 	
Bull Call Spread	Buy lower strike calls and sell higher strike calls (same expiration)	Capped risk; lower breakeven point than simply buying a call.	Capped reward	 + 	
Bull Put Spread	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
Bear Call Spread	Sell lower strike calls and buy higher strike calls (same expiration)	Capped risk; bearish income strategy.	Capped reward		
Bear Put Spread	Sell lower strike puts and buy higher strike puts (same expiration).	Capped risk	Capped reward		
Bull Call Ladder	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.		
Bull Put Ladder	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.		
Bear Call Ladder	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.		









Strategy	Execution	Benefits	Disadvantages	Component Parts	Risk Profile
Bear Put Ladder	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.		
Straddle	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 whilst high volatility required once you are in.		
Short Straddle	Sell puts and calls with same strike and expiration.	Net credit into your account; profitable if stock shows low volatility and does not move.	Uncapped risk on either side.		
Strangle	Buy lower strike puts and buy higher strike calls (same expiration)	Capped risk; profitable if stocks rises or falls significantly; uncapped reward.	Low volatility required for entry whilst high volatility required once you are in.		
Short Strangle	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
Strip	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 whilst high volatility required once you are in.		
Strap	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 whilst high volatility required once you are in.		
Long Call Butterfly	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.		
Long Put Butterfly	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.		
Short Call Butterfly	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.		



















Strategy	Execution	Benefits	Disadvantages	Component Parts	Risk Profile
Short Put Butterfly	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.		
Modified Call Butterfly	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.		
Modified Put Butterfly	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.		
Call Ratio Backspread	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 (upwards) for your trade to be profitable.		

Strategy	Execution	Benefits	Disadvantages	Component Parts	Risk Profile
Put Ratio Backspread	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 (downwards) for your trade to be profitable.		
Ratio Call Spread	Buy lower strike call and sell greater number of higher strike calls (ratio of 0.67 or less).		Uncapped risk; capped reward.		
Ratio Put Spread	Buy higher strike put and sell greater number of lower strike puts (ratio of 0.67 or less).		Uncapped risk; capped reward.		
Long Call Condor	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 rangebound after you are in.	Capped reward; awkward to adjust.		

Strategy	Execution	Benefits	Disadvantages	Component Parts	Risk Profile
Long Put Condor	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 rangebound after you are in.	Capped reward; awkward to adjust.		
Short Call Condor	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.		
Short Put Condor	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.		
Long Call Synthetic Straddle	Sell 1 stock and buy 2 ATM calls.	Capped risk; profitable if stocks rises or falls significantly; uncapped reward; cheaper than doing a normal Straddle.	Low volatility required for entry whilst high volatility required once you are in.		

Strategy	Execution	Benefits	Disadvantages	Component Parts	Risk Profile
Long Put Synthetic Straddle	Buy 1 stock and buy 2 ATM puts.	Capped risk; profitable if stocks rises or falls significantly; uncapped reward.	Even more expensive than normal Straddle; low volatility required for entry whilst high volatility required once you are in.		
Short Call Synthetic Straddle	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.		
Short Put Synthetic Straddle	Sell 1 stock and sell 2 ATM puts.	Cheap and net credit into your account; profitable if stock shows low volatility and does not move.	Uncapped risk on either side; large margin required.		
Long Iron Butterfly	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 which brings in a net credit to your account; capped risk; profitable if stock doesn't move much; capped risk.	Capped reward; margin required.		

Strategy	Execution	Benefits	Disadvantages	Component Parts	Risk Profile
Short Iron Butterfly	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.		
Calendar Call	Buy long-term call and sell shorter-term call (same strikes).	Capped risk; can sell the shorter-term calls on a monthly basis in order to generate income.	Capped reward; can become loss-making if the underlying asset rises too much.		
Calendar Put	Buy long-term put and sell shorter term put (same strikes).	Capped risk; can sell the shorter-term calls on a monthly basis in order to generate income.	Capped reward; can become loss-making if the underlying asset rises too much.		
Diagonal Call	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 in order to generate income.	Capped reward.		
Diagonal Put	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 in order to generate income.	Capped reward.		

Strategy	Execution	Benefits	Disadvantages	Component Parts	Risk Profile
Guts	Buy lower strike calls and buy higher strike puts.	Capped risk; profitable if stocks rises or falls significantly; uncapped reward.	Expensive because you're buying ITM options.	 + 	
Short Guts	Sell lower strike calls and sell higher strike puts.	Net credit into your account; profitable if stock shows low volatility and does not move.	Uncapped risk on either side.	 + 	
Long Synthetic Future	Buy ATM call and sell ATM put.	Simulates going long on a stock with no or very little net debit or credit.	Same leverage as the underlying.	 + 	
Short Synthetic Future	Sell ATM call and buy ATM put.	Simulates going short on a stock with no or very little net debit or credit.	Same leverage as the underlying.	 + 	
Long Combo	Sell OTM (lower) put and buy OTM (higher) call.	Almost simulates going long on a stock with no or very little net debit or credit.	Same leverage as the underlying.	 + 	
Short Combo	Buy OTM (lower) put and sell OTM (higher) call.	Almost simulates going short on a stock with no or very little net debit or credit.	Same leverage as the underlying.	 + 	

Strategy	Execution	Benefits	Disadvantages	Component Parts	Risk Profile
Long Box	Buy one low strike call, sell one same strike put; sell one higher strike call, 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 make it difficult to guarantee a profitable position.	