

Basics of Options

- Calls and Puts



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1. Introduction

Welcome to the world of options trading! Options are versatile financial instruments that provide investors with the opportunity to profit from market movements or hedge against potential risks. In this introductory course, we will explore the basics of two fundamental option types: calls and puts.

Calls:

- A call option gives the holder the right, but not the obligation, to buy an underlying asset at a specified price (strike price) before or at the option's expiration date.
- Call buyers anticipate that the price of the underlying asset will rise, allowing them to purchase the asset at a potentially lower cost than its market value.
- Call sellers, on the other hand, take on the obligation to sell the underlying asset if the call buyer decides to exercise the option.

Puts:

- A put option provides the holder with the right, but not the obligation, to sell an underlying asset at a specified price (strike price) before or at the option's expiration date.
- Put buyers expect the price of the underlying asset to fall, allowing them to sell the asset at a potentially higher price than its market value.
- Put sellers, in contrast, undertake the obligation to buy the underlying asset if the put buyer decides to exercise the option.

Understanding calls and puts is essential for navigating the options market. Throughout this course, we will delve into the basics of calls and puts, what they are, how they are priced and practical applications of options, empowering you to make informed decisions and leverage the potential of these financial instruments. Whether you're a beginner exploring the basics or an experienced trader looking to refine your skills, this course aims to equip you with the knowledge to navigate the exciting world of options trading.

1.1. Mentoring Service

Embark on a streamlined journey to financial proficiency with our Stock and Options Mentoring Service. Elevate your learning curve by enlisting a **personal** mentor who will

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guide you through the intricacies of stock and options trading. Our comprehensive program offers:

- Weekly one-on-one mentoring sessions, ensuring personalized attention and targeted skill development.
- Gain a competitive edge with daily live market updates
- Exclusive access to curated stock watchlists
- Insights into our meticulously crafted options and futures trades.
- Save valuable time, effort, and money as you fast-track your education with our dedicated support system.

With daily assistance and a wealth of resources at your fingertips, you'll not only navigate the markets more confidently but also accelerate your journey toward financial success. Join us in unlocking the full potential of your trading endeavors.

[CLICK HERE](#) to book a FREE Mentoring session to find out more.

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2. The Basics of Options

Every day, options traders around the world profit from the rise and fall of equity markets. Even when the general markets are down, there is profit to be made if you simply know how to make options work for you.

Options can become very powerful tools in the hands of the educated investor. They allow investors to make money regardless of overall market conditions, with strategies so diverse traders can tailor their approach to be conservative, to protect or "hedge" their positions, or even be aggressive with money they invest.

Options have many uses:

- To participate in the ups and downs of a stock's price without owning the stock
- Make a monthly income on stock that you currently own
- Protect a stock & make money when the market goes down
- Repair a stock position when the stock falls

At Share Navigator we teach options to reduce risk, not speculate! In some circles the word "options" conveys the notions of high risk and speculation. While it is true that options can be used to speculate, it is important to understand that Options are a great way of reducing risk. In fact, with the right strategy, options are less risky than owning shares!

Regardless of your investing goals, risk tolerance, or experience you need to be aware of the basic fundamentals of Options. In this chapter we will cover the basics of Option Contracts.

Please contact us if you have any questions.

2.1. What is an Option?

[CLICK HERE](#) to watch a short video outlining what call and put options are.

In the stock market, an option is a financial contract that gives the holder the right, but not the obligation, to buy or sell a specific underlying asset at a predetermined price

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(known as the strike price) on or before a specified expiration date. Options are a type of derivative, meaning their value is derived from the underlying asset, which can be a stock, index, currency, commodity, or another financial instrument. There are two main types of options: call options and put options.

2.1.1. Call Option:

- A call option gives the holder the right (but not the obligation) to **BUY** the underlying asset at the strike price before or on the expiration date.
- Call options are often used when an investor anticipates that the price of the underlying asset will rise. They profit if the asset's price exceeds the strike price by more than the premium paid for the option.

Example: Suppose you hold a call option with a strike price of \$50 for Company ABC's stock. If the stock's market price rises to \$60 before the option's expiration date, you can exercise the call option, buying the stock at \$50 and immediately selling it at the higher market price for a profit.

2.1.2. Put Option:

- A put option gives the holder the right (but not the obligation) to **SELL** the underlying asset at the strike price before or on the expiration date.
- Put options are often used when an investor expects the price of the underlying asset to fall. They profit if the asset's price drops below the strike price by more than the premium paid for the option.

Example: Suppose you hold a put option with a strike price of \$60 for Company XYZ's stock. If the stock's market price falls to \$50 before the option's expiration date, you can exercise the put option, selling the stock at \$60, which is higher than the market price, for a profit.

Key concepts related to options:

1. Premium: The price paid to purchase an option contract. This premium is paid to the option seller (also known as the writer) and represents the cost of holding the option.

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2. Expiration Date: The date when the option contract expires. After this date, the option becomes worthless and no longer has value.

3. Strike Price: The predetermined price at which the holder of the option can buy (for call options) or sell (for put options) the underlying asset.

4. American vs. European Options: American options can be exercised at any time before or on the expiration date, while European options can only be exercised on the expiration date.

5. In-the-Money (ITM), At-the-Money (ATM), and Out-of-the-Money (OTM): These terms describe the relationship between the option's strike price and the current market price of the underlying asset. An option is considered ITM if it would be profitable to exercise immediately, ATM if the strike price equals the market price, and OTM if it would not be profitable to exercise immediately.

Options are used for various purposes, including hedging, speculation, and income generation. They provide investors with flexibility and the ability to tailor their investment strategies to different market conditions. However, options trading can be complex and carries a higher level of risk compared to traditional stock investing, so it's important for investors to fully understand options and their associated risks before trading them.

2.2. What is an Options contract?

[CLICK HERE](#) to watch a short video outlining Option Contracts.

Options Trade on an Exchange

- Options trade on exchanges like stocks do. They have Buy (Ask) and Sell (Bid) prices. The exchange for the US stock market is the CBOE (The Chicago Board of Options Exchange).
- Stocks and Shares are bought and sold in New York, Options on shares are bought and sold in Chicago.

Share Control

- Options are bought and sold in 'Contracts'.
- 1 Option contract controls 100 shares of stock.

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2.3. Elements of an Option Contract

Let us look at the definition of an option again. An option is the right, **not the** obligation, to buy or sell a stock at a specific price on or before a specific date.

There are 3 key elements to an Options Contract:

1. **Strike Price** - is the price at which you have the right to buy or sell the shares
2. **Expiry** - The date on which the Option Contract ends
3. **Premium** - The Price of the Option.

2.4. Everyday examples of an Option

Let's take a look at an example of what a Call option contract might look like when buying a house. Imagine that you have found your dream home and want to purchase it. However, it will take time to obtain the necessary financing. You want to secure the house.

Your solution is to go to the house owner and create a contract that will give you the right to buy the house, **but not** the obligation (just in case you cannot get the finance). The following may form the basis of the option contract to purchase the house:

Strike Price

You go to the property owner and strike a deal that allows you to purchase the property for €250K. The property owner agrees and you now have the right to purchase the property at the agreed upon price. The price that you agree is called the 'Strike Price'.

Expiration Date

The contract is written with an expiration clause so as to protect the house owner from being obligated to sell his or her house for an unreasonable amount of time. In this case you agree to purchase within 3 months as you are confident that you will have received financing by then.

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Premium

The house owner will expect to collect a premium for being obligated to sell you the property. The premium will be determined by:

1. **Time:** How long he/she will be under obligation and what the expectations are for the property to move up or down in value. The more time the property will be tied up, the more money he/she will expect.
2. **Expected Future Value:** The more likely the house is to increase in value during the duration of the contract, the more money he/she will expect.

Let's say that the property owner requires a premium of €5000 in this case. If you are not successful in obtaining finance, you can simply walk away from the deal and lose only the amount that it cost you to purchase the option contract €5000.

Of course, your reasons for entering into this type of deal are fairly clear, but why would the property owner be interested in such an arrangement? For one thing, he/she gets to keep the premium paid for the contract no matter what happens, allowing him/her to make a little upfront money on a house he may or may not wind up even selling.

Now let's see what an option contract might be like for a stock.

2.5. Basic example with a Call Option

The example of the house purchase option is very similar to what happens with a 'Call Option' in the stock market. Stock options are contracts that have strike prices, expirations, and premiums.

Imagine the following scenario:

It is April and you like the future prospects of Apple computers. The current stock price is \$100. However your cash flow is tight at the moment and you do not want to pay for the stock right now as you are expecting to have a lump sum of cash in July. You want to lock in a stock price today for Apple so that you can take advantage of any upward movement in the stock price in the future. You decide to buy a 'Call Option' on Apple and check the Call Options market on Apple. The following may form the basis of the option contract to purchase Apple:

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Strike Price

The Strike Price is the price per share at which you will have the right to buy or sell the underlying stock. In our scenario above, we want the right to buy Apple at \$100. The strike price is \$100.

Please note: Strike prices are determined by the options exchanges and are stated in even increments.

Expiration Date

Every option contract has a month or week in which it expires. In our scenario above we have chosen the July expiry date. This is the 17th of July.

Premium

Like our example of the house purchase we must pay a premium for the right to purchase the shares of Apple in July. Let us say in this example that the premium is \$5.00.

Now what does our Call Option contract look like?

1. **Premium:** We have paid a premium of \$5
2. **Strike price:** To purchase Apple at \$100
3. **Expiration Date:** Valid until the 17th July

Two things can happen to the stock price of Apple between now and 17th July:

1. Apple stock price goes up over \$100. In this scenario we will exercise our right to purchase the stock for \$100 from the call option seller.
2. Apple stock price goes down below \$100. In this scenario we will not exercise our right to purchase the stock for \$100 from the call option seller because we can buy the stock in the open market for less than \$100.

Options Exercise

When you take advantage of the right granted by your option, it is known as EXERCISE. If you exercise a call, you buy the stock at the option's strike price. If you exercise a put, you sell the stock at the option's strike price.

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3. How are Options Priced?

Options trade on exchanges just like stocks do. You have a bid and ask price for each option. Options can be bought and sold daily just like stocks. But now you need to know about how options are priced. This is important and we would encourage you to read this chapter a number of times until you have a good understanding.

Option Premium

The Option Premium is another way of saying 'the price' of an Option. The premium also represents the amount the seller of the option will collect for assuming the obligation of the contract.

Share Control

Note that options in the U.S. control 100 shares of stock. The premium is quoted for one share. If you see a July 30 call at \$2, the price for one contract is 100 shares multiplied by \$2, or \$200. ($100 \times \$2 = \200).

3.1. Basic Options Price Formula

I don't see the point in giving you an advanced math class at this point. Those of you who want complex mathematics and option pricing formulas can visit the Black Scholes Model for option prices.

For the purposes of this course we will keep it very simple. There are many factors affecting option premiums but you need to be aware of 2 broad factors:

1. Intrinsic Value (Real Value)
2. Time to expiration which includes Volatility

$$\text{Option Premium} = \text{Intrinsic Value} + \text{Time Value}$$

Note: There are more elements to option pricing but for now the above formula will suffice. We now need to discuss Intrinsic Value and Time Value in greater detail.

3.2. Option Prices - In the Money, At the Money and Out of the Money

[CLICK HERE](#) to watch a short video explaining the concepts of In the Money, At the Money and out of the Money with Option Prices.

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	Call Options	Put Options
Share Price Higher than Option Strike Price	ITM	OTM
Share Price Lower than Option Strike Price	OTM	ITM
Share Price same as Option Strike Price	ATM	ATM

In options trading, "ITM" (In The Money), "OTM" (Out of The Money), and "ATM" (At The Money) are terms used to describe the relationship between the current price of the underlying asset and the strike price of an option. These terms help traders and investors understand the current status of an option and its potential profitability. Here's what each term means:

1. In The Money (ITM):

- **Call Option:** A call option is considered "In The Money" (ITM) when the current market price of the underlying asset is higher than the option's strike price. In this situation, exercising the call option would result in a profit because you can buy the underlying asset at a lower strike price and sell it at the higher market price.
- **Put Option:** A put option is considered "In The Money" (ITM) when the current market price of the underlying asset is lower than the option's strike price. Exercising the put option would lead to a profit because you can sell the underlying asset at a higher strike price and buy it back at the lower market price.

2. Out of The Money (OTM):

- **Call Option:** A call option is considered "Out of The Money" (OTM) when the current market price of the underlying asset is lower than the option's

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strike price. In this scenario, exercising the call option would not make sense because it would result in a loss. OTM call options have no intrinsic value.

- **Put Option:** A put option is considered "Out of The Money" (OTM) when the current market price of the underlying asset is higher than the option's strike price. Exercising the put option would also result in a loss, so OTM put options have no intrinsic value.

3. **At The Money (ATM):**

- An option is considered "At The Money" (ATM) when the current market price of the underlying asset is very close to the option's strike price. In this case, the intrinsic value of the option is minimal or nonexistent. The option's premium consists mostly of time value.
- ATM options are often used for hedging or as a neutral strategy. They have the potential to become ITM or OTM depending on the future price movement of the underlying asset.

It's important to note that the classification of an option as ITM, OTM, or ATM can change as the price of the underlying asset fluctuates. Traders and investors use these terms to assess the risk and potential profitability of their options positions and to make informed trading decisions. Each status (ITM, OTM, ATM) carries its own set of characteristics and implications for options trading strategies.

3.3. **Intrinsic Value (Real Value)**

Intrinsic Value is also known as Real Value. It is the value of an option that is In-The-Money (ITM).

Calculating the Intrinsic Value (Real Value)

Intrinsic value (Real Value) is the difference between the stock price and the ITM strike price. In other words, it is the ITM portion of an option's price.

Intrinsic value (Call Options): Let's take an example of Apple.

- Apple is trading at \$110
- The strike price on a Call option is \$105
- The Intrinsic Value in the Call option at the \$105 strike is \$5.00 (ITM)
- The Intrinsic Value of the Put option at the \$115 strike is \$0 (OTM)

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Intrinsic Value (Put Options): Using the same example on Apple

- Apple is trading at \$110.
- The strike price on a Put option is \$115
- The Intrinsic Value in the Put option at the \$115 strike is \$5.00 (ITM)
- The Intrinsic Value of the Call option at the \$115 strike is \$0 (OTM)

Understanding the difference between the Time Value and the Intrinsic Value is really important. Please use this document as a reference guide and watch the videos we place on the courses.

Now let's talk about Time Value.

3.4. Time Value (Extrinsic Value)

The time value of an option, also known as extrinsic value or premium, is a critical concept in options trading and is influenced by several factors. It represents the portion of an option's price that is not intrinsic value, but rather the value attributed to the potential for the option to gain intrinsic value before it expires.

Here is a detailed explanation of the time value of an option:

1. **Intrinsic Value:** To understand time value, you first need to grasp intrinsic value. Intrinsic value is the actual value of an option if it were exercised immediately. For a call option, the intrinsic value is the current market price of the underlying asset minus the strike price (if the market price is higher than the strike). For a put option, it is the strike price minus the current market price (if the market price is lower than the strike). Intrinsic value is always positive or zero.
2. **Time Decay:** Options have a finite lifespan, typically ranging from a few days to several years. As an option approaches its expiration date, its time value erodes gradually. This erosion in value due to the passage of time is known as time decay. Time decay occurs at an accelerating rate as the option nears expiration.
3. **Factors Affecting Time Value:**
 - **Time to Expiration:** The longer the time until an option expires, the higher its time value. This is because there's a greater chance that the option could move into a profitable position before expiration.

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- **Volatility:** Higher volatility in the underlying asset increases the time value of options. This is because volatile assets have a greater potential to make significant price moves in a short time, which benefits option holders.
 - **Interest Rates:** Interest rates can affect the time value of options, with higher rates generally leading to higher time values for call options and lower time values for put options.
 - **Dividends:** For stocks that pay dividends, the time value of call options may be affected because owning the option means foregoing dividend income.
4. **Time Value's Role in Option Pricing:** The total premium or price of an option is the sum of its intrinsic value and time value. Mathematically, it can be expressed as:
- Option Premium = Intrinsic Value + Time Value
- So, if an option has no intrinsic value, the entire premium is composed of time value.
5. **Trading Strategy:** Traders often use the time value of options to design strategies. For example, options sellers (writers) may try to profit from time decay by selling options with the hope that the options will expire worthless. On the other hand, options buyers may want to minimize time decay by purchasing options with a longer time to expiration if they anticipate a more extended price move in the underlying asset.

In summary, the time value of an option represents the potential value that can be realized before the option expires. It is influenced by factors such as time to expiration, volatility, interest rates, and dividends. Understanding time value is crucial for both option buyers and sellers in making informed trading decisions.

Let's talk about the volatility element of time value.

3.5. Volatility - Historical and Implied

[CLICK HERE](#) to watch a short video explaining Historical and Implied Volatility.

One of the most important aspects in determining the value of an option is the behavior of the underlying stock. Volatility is the measure of stock price movement, or how much a stock price moves up and down – the greater the up-and-down movement of the

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stock, the greater the odds that the option will be In-the-Money during its lifespan. Higher volatility – and the greater chance of being In-The-Money – increases the price of the option.

As the Volatility of a stock increases, an option's premium will likewise usually increase.

Options traders often use two types of volatility to assess and make decisions: historical volatility (HV) and implied volatility (IV). These metrics provide insights into the expected price fluctuations of the underlying asset and are crucial in options pricing and trading strategies.

3.5.1. Historical Volatility (HV)

Historical volatility is a measure of how much an underlying asset's price has fluctuated in the past. It is calculated using historical price data over a specific period, typically a fixed number of days or months. HV is expressed as a percentage and helps traders understand the level of price movement an asset has experienced in the past. It doesn't provide information about future volatility but is useful for assessing the general price behavior of the underlying asset.

3.5.2. Formula for Historical Volatility

$$HV = (\text{Standard Deviation of Daily Returns} / \text{Mean Daily Returns}) * \sqrt{(\text{number of trading days in a year})}$$

3.5.3. Example of Historical Volatility:

Suppose you want to calculate the 30-day historical volatility of a stock. You collect the daily closing prices for the last 30 days and then compute the standard deviation of daily returns. If the standard deviation is 2%, it means the stock has, on average, moved up or down by 2% per day over the past 30 days.

3.5.4. Implied Volatility (IV)

Implied volatility is a forward-looking measure that reflects the market's expectations of future price volatility for the underlying asset. IV is derived from options prices (both call and put options) and is a critical component in the Black-Scholes and other pricing models for options. High IV suggests the market anticipates significant price

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fluctuations, while low IV implies expectations of relatively stable prices. Traders use IV to gauge whether options are relatively expensive or cheap. High IV can lead to more expensive options, while low IV can result in cheaper options.

Option Implied Volatility (IV) and IV Rank are important concepts in options trading and are used to assess the current market perception of future price volatility. Let's break down these terms and explain them:

Implied Volatility (IV) is a measure of the market's expectations for future price volatility of an underlying asset, as reflected in the prices of options on that asset. It is not a historical measure but rather a forward-looking one. IV is expressed as a percentage and represents the annualized expected price movement of the underlying asset.

Here are a few key points about IV:

- **Options Pricing:** IV is a critical component in determining the prices of options. Higher IV leads to higher option premiums, while lower IV results in lower premiums.
- **Market Sentiment:** IV reflects the collective sentiment of options traders and investors about the potential for significant price swings in the future.
- **Earnings and Events:** IV often rises leading up to significant events like earnings reports, product launches, or economic data releases, as traders anticipate increased price volatility.

3.5.5. Example of Implied Volatility

Suppose a stock is currently trading at \$100, and its call options with a strike price of \$110 have an implied volatility of 25%. This means the market expects the stock to have significant price movements in the near future. As a result, the premiums for these call options will be relatively higher. Traders often compare HV and IV. If IV is significantly higher than HV, it may suggest that options are expensive, and traders might consider selling options to take advantage of this premium. Conversely, if IV is lower than HV, options may be perceived as cheap, and traders might consider buying options.

In summary, historical volatility is a measure of past price movements, while implied volatility reflects market expectations of future price movements. Traders use both

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metrics to make informed decisions regarding options strategies, including buying or selling options and determining whether options are relatively expensive or cheap in the current market conditions.

3.6. IV (Implied Volatility) Rank

IV Rank is a way to compare the current IV of an option (or a group of options) to its historical IV range. It provides context to help traders assess whether the current IV is relatively high or low compared to its historical values. IV Rank is expressed as a percentage.

Here's how IV Rank is calculated:

- Calculate the current IV for the option(s) in question.
- Determine the historical range of IV for the same option(s), usually using a specific lookback period (e.g.52 weeks).
- Calculate where the current IV falls within that historical range and express it as a percentage.

IV Rank Interpretation:

- **High IV Rank:** If the current IV is at or near the upper end of its historical range, this suggests that options are relatively expensive, and the market expects high volatility. Traders may consider selling options to take advantage of inflated premiums.
- **Low IV Rank:** If the current IV is at or near the lower end of its historical range, this suggests that options are relatively cheap, and the market expects low volatility. Traders may consider buying options in anticipation of a potential price move.

IV Rank is a valuable tool for options traders because it helps them assess whether an option's implied volatility is currently high or low compared to its recent history. However, it should be used in conjunction with other factors in a trading strategy to make informed decisions.

In summary, Option Implied Volatility (IV) reflects the market's expectations for future price volatility, while IV Rank compares the current IV to its historical range, helping

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traders gauge whether options are relatively expensive or cheap. These concepts are crucial for managing risk and making informed trading decisions in the options market.

3.7. Option Prices with Examples

[CLICK HERE](#) to watch a short video example of Option Prices.

3.8. How to calculate Time Value

Rearranging that Formula you get:

$$\text{Time Value} = \text{Option Price} - \text{Intrinsic Value}$$

This is really important to get your head around as the Time Value in an option will largely dictate option strategies that you pick later on.

3.9. Option Pricing - Full Length Video Explanation

[CLICK HERE](#) to view.

3.10. Test Your Knowledge - Quiz 1

[CLICK HERE](#) to test your knowledge.

4. The Long Call Strategy (Buying Calls)

Discover the transformative potential of options trading as we unveil the secrets to mitigating risk in your everyday investment ventures through the Power of Options. Options, a versatile financial tool, can be harnessed for speculation or, as we emphasize, for risk reduction.

Our focus in this section centers on the fundamental Long Call strategy, a powerful technique enabling you to capitalize on upward market trends without actual ownership of shares.

Instead of purchasing company stocks, you acquire a Call Option, granting you the right (but not the obligation) to buy shares at a predetermined price in the future. This strategy empowers you to profit from surging share prices at a fraction of the cost and risk associated with direct ownership.

In this section, we meticulously dissect the pros and cons of the Long Call Strategy while revealing techniques to achieve a higher return on investment compared to traditional stock buying.

Active participation through assignments is paramount, as hands-on experience is the key to mastering options trading. Exclusive to members of our mentoring plan, a 'Demo' account awaits, providing a safe environment for practical application and skill refinement. Seize the opportunity to practice, practice, practice, and elevate your investment prowess to new heights.

4.1. Long Call: Introduction

The long call is a bullish strategy that allows you to participate in a stock at a fraction of the cost of buying the shares outright. If the share price moves up substantially, you will benefit from that upward move in the share price.

For example, Facebook shares are trading at \$118 (2017) and you may think the share price will rise. Rather than buying the shares of Facebook outright you decide to look at the call options. You notice that you can buy a call option which expires four months from today at the \$120 strike for \$5.45 per share.

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If you buy 1 contract of this call option, it will cost you \$545 (because 1 contract controls 100 shares of stock). This call option contract will give you the right to buy 100 shares of Facebook at any stage between now and the expiration date for \$120.

So, rather than paying \$11,800 now ($\118×100) for the shares, you can simply take control of the shares at \$120 for \$545, for the next 4 months. If the share price rises to \$130 for example, you can (technically) buy the shares for \$120 and sell them immediately for \$130 making a \$4.55 profit ($\$10$ profit on stock minus the $\$5.45$ cost of the call option). In real life, you will simply sell the call option for a similar profit.

We will use this example throughout this strategy and you will see why the long call strategy is less risky than buying shares and how return on investment can be significantly higher

4.2. Long Call: Creating a Long Call Trade

The long call strategy is constructed by buying a call option. An investor with this position can be said to be 'Long' a call.

Long Call Strategy = Buy a Call Option

4.3. Long Call: Debit vs. Credit

A long call strategy will always be established at a net debit. In other words, it costs you money to buy a Long Call.

Long Call Strategy = Debit

4.4. Long Call: Example with Facebook (FB)

To establish a Long Call Strategy with FB options, an investor might buy 1 contract of the FB Mar 17th 2017 \$120 call for \$5.45 (ask price). The result is the investor holding 1 FB Mar 17th 2017 \$120 call at a \$5.45 net debit per share. Remember, we have a \$130 target price on the stock. Looking at the matrix below, you will see the immediate cost benefits of using a call option versus buying the stock outright.

Buy the Stock

\$11,800

Long \$120 Call

\$545

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4.5. Long Call: Share price expectation

The long call strategy is a very bullish position. We want the share price of FB to rise substantially between now and the expiration date on March 17th 2017.

Long Call Strategy = Very bullish

In our Facebook example, we intend closing the position when Facebook gets to \$130.

4.6. Long Call: Maximum Profit

The maximum upside profit for a long call strategy is said to be 'unlimited'. The further the share price of the stock rises above the break-even price, the more valuable the call option becomes. We therefore cannot define exactly the maximum profit when we buy a call option.

Maximum Profit = Unlimited

Profit = (Value of Call Option minus cost of Call Option) multiplied by (number of contracts purchased multiplied by 100)

In the FB example, if the value of the \$120 call is \$10 (at our \$130 target price for the stock). Our profit will be:

$$\begin{aligned}
 &= (\$10.00 - \$5.45) * 1 * 100 \\
 &= \$4.55 * 100 \\
 &= \$455
 \end{aligned}$$

The max profit profile for the long call is similar to buying the stock, both are said to have unlimited profit potential. But comparing the profit potential if Facebook gets to \$130, you will see that buying the stock is better.

	Long \$120 Call	Buy the Stock
Capital Investment/Risk	\$545	\$11,800
Max Profit	Unlimited	Unlimited
Profit (If \$130)	\$455	\$1,200

4.7. Long Call: Return on Investment

Return on investment is calculated as follows: (Profit divided Cost of the Call Option) multiplied by 100. In our FB example, return on investment is:

$$= (\$455/\$545) * 100$$

$$= 83.49\%$$

If we just invested in the stock at \$118, the profit would be \$1,200. Why shouldn't we just do that? We would have made more profit, right?

The answer is yes, we would have made more profit but we also would have had to use a lot more capital and risk to make that profit. Remember to buy 100 shares of stock it would have cost us \$11,800. Therefore, our return on investment if we invested in the stock would have been:

$$= (\$1,200/\$11,800) * 100$$

$$= 10.17\%$$

The matrix below explains it well, we invest \$545 to make \$455 profit with the long \$120 FB call or for the same scenario invest \$11,800 in Facebook stock to make \$1,200. On a risk to reward ratio basis the long call strategy wins easily.

	Long \$120 Call	Buy the Stock
Capital Investment/Risk	\$545	\$11,800
Max Profit	Unlimited	Unlimited
Profit (If \$130)	\$455	\$1,200
ROI	82.49%	10.17%

As you can see from the above you have risked a lot less with the long call to make the profit, that is why the return on investment is so high.

4.8. Long Call: Maximum Loss

The maximum downside loss for a long call strategy is 'limited' entirely to the net debit initially paid for it. This loss will be seen if Facebook closes at or below the \$120 strike price of the long call at expiration, no matter how low the Facebook declines.

$$\text{Maximum loss} = \text{Debit paid}$$

Maximum loss in our Facebook example = \$5.45 debit paid, or \$545 total

Again, comparing the Facebook long \$120 call strategy to simply buying the stock at \$118, you will see that there is a lot more at risk if we buy the stock. It is unlikely that Facebook shares will go to zero, but the risk of buying 100 shares of Facebook is technically \$11,800.

Let's say Facebook falls 10% in the next 4 months, if we invested in the stock we would have lost \$1,180 versus only losing \$545 by purchasing the call option. Buying the call option involves less monetary risk than buying the stock. See matrix below:

	Long \$120 Call	Buy the Stock
Capital Investment/Risk	\$545	\$11,800
Profit/Reward (if share price rises to \$130)	\$455	\$1,200
ROI	82.49%	10.17%
Max Loss	\$545	\$11,800

4.9. Long Call: Break-Even Price

The break-even price for a long call strategy at expiration is a closing Facebook stock price equal to the strike price of the long \$120 call plus the \$5.45 debit paid for the spread.

$$\text{Break-even price} = \text{Strike price} + \text{net debit paid}$$

At expiration, the break-even price for the Facebook \$120 long call would be equal to \$120 (strike price) + \$5.45 (net debit paid) = \$125.45. In other words, the share price of

Facebook would need to be over \$125.45 at expiry on March 17th for us to start making a profit.

This is one of the downsides of this strategy when you compare it to buying the stock. We need Facebook shares to move up \$7.45 from the current price of \$118 to make a profit with the FB long March 17th \$120 call. Whereas, with the stock the breakeven price is the price you paid for the stock.

The matrix below illustrates this well:

	Long \$120 Call	Buy the stock at \$118
Break-even price	\$125.45	\$118

There is a way to reduce the breakeven price for the long call which we will discuss in greater detail later. But it involves buying in-the-money calls. They are more expensive but they will reduce the breakeven price. This is a trade-off that you will need to consider and will depend on how bullish you are on the stock.

	Long \$120 Call	Buy the Stock
Capital Investment/Risk	\$545	\$11,800
Profit/Reward (if share price rises to \$130)	\$455	\$1,200
ROI	82.49%	10.17%
Max Loss	\$545	\$11,800
Break-Even price	\$125.45	\$118

4.10. Long Call: Probability of Profit

One of the major drawbacks of the long call strategy is the probability of profit before expiration. The long call strategy will have a probability of profit that will be lower than 50%. In fact, the further out-the-money the call option you purchase, the less chance you have of being profitable.

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In the Facebook example, the probability of profit is just 38%. The probability of profit for purchasing the stock is 50%. As you can see from this example, the chances of profit are greater when you buy the stock versus buying the Facebook \$220 call option. This is a major consideration for you and it should not be underestimated. See matrix below:

	Long \$120 Call	Buy the Stock
Capital Investment/Risk	\$545	\$11,800
Profit/Reward (if share price rises to \$130)	\$455	\$1,200
ROI	82.49%	10.17%
Max Loss	\$545	\$11,800
Break-Even price	\$125.45	\$118
Probability of Profit	38%	50%

The reason that the probability is lower on the long call in this example, is because the break-even price for the long stock is lower than the break-even price of the long call.

This is one of the major reasons we much prefer the bull call spread strategy to the long call strategy.

Please note: if the share price rises soon after purchase of the long call there is a strong possibility of the long call being profitable. The reason is that there is 'time' value left in the call option. Our examples above assume that we are at expiration and that no 'time' value exists.

But you should still be aware of the total risks in each trade.

4.11. Long Call: Partial Loss

At expiration, if Facebook closes at a price between the break-even price and the \$120 strike price, a partial loss would be seen. Above the break-even point there would be a profit.

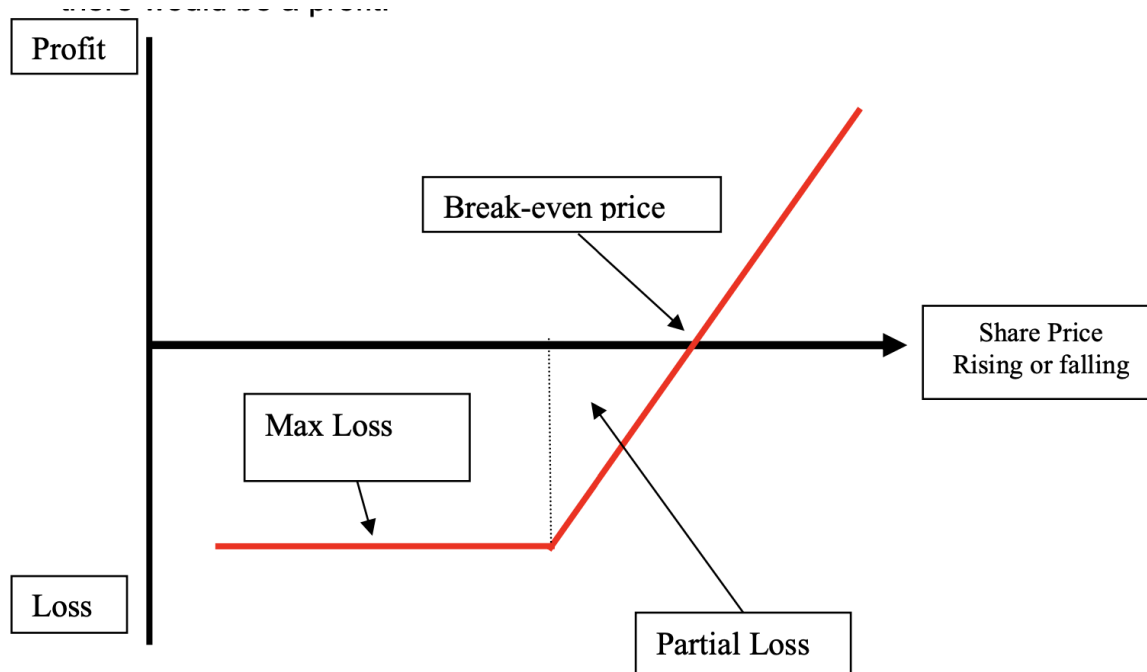


Figure 1: Profit and Loss Dynamics for the Long Call Strategy

4.12. Long Call: Profit & Loss tables

It is important for you to get into the habit of creating profit and loss tables. [CLICK HERE](#) to watch a short video outlining profit and loss tables for the Long Call option. Here is an example of a P&L table for the FB March 17th \$120 Call Option:

FB price at Expiration	Long \$120 Call Value	Cost of Long Call	Long Call Profit/Loss
\$118	0	-\$545	-\$545
\$120	0	-\$545	-\$545
\$122	+ \$200	-\$545	-\$345
\$124	+ \$400	-\$545	-\$145

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4.13. Long Call: Profit & Loss Before Expiration

Before expiration, an investor can take a profit or cut a loss by selling the call option if it has market value which will be done at a net credit. Profit or loss would simply be the net difference between the debit initially paid for the call option and the credit received at its sale.

4.14. Long Call: Effect of Volatility

An increase in volatility has a positive effect however, usually when implied volatility is increasing the share price of the stock is falling. Any share price fall will be a negative for the Call Option.

4.15. Long Call: Effect of Time Decay (Theta)

For a long call strategy, theta is negative. As each day passes to expiry, time value is eroding from the call option. Look at the option quote for Facebook:

Call						
Delta	Gamma	Theta	Bid	Ask	Description	
0.590	0.024	-0.033	◆ 7.90	8.05 ◆	▼ MAR 17 '17	
0.466	0.025	-0.033	◆ 5.30	5.45 ◆	115	
					120	

You will see that the theta value is -0.033. This means that \$0.033 per share or \$3.30 total of time value will erode every day from the value of the \$120 call up to the March 17th expiry. Therefore, because you own the call option contract you want the value of the option to increase not decrease. Theta is working against you.

4.16. Long Call: Delta

Delta is the rate of change in the value of an option for a \$1 move in the underlying share price. In our example with Facebook, you can see that the delta for the March 17th \$120 call is 0.466. This means that as the share price of Facebook rises by \$1, the value of the \$120 call will rise by \$0.466 per share or \$46.60 total and vice versa.

The further in-the-money the call option is, the higher the delta will be until eventually you get a delta of 1. This is where the call option mirrors the stock movement exactly. If you are going to buy calls it is a good idea to choose calls with a delta of 0.70 or higher.

We can also consider delta as having 46.6 shares of Facebook. Think about it...if Facebook rose by \$1 and we owned 46.6 shares we would make a profit of \$46.60. The exact same as the long \$120 call option position.

A couple of things to know about delta:

1. Positive delta is a bullish bias
2. Negative delta is a bearish bias
3. You should always consider the overall delta position in your portfolio – we like to be option sellers and keep our overall portfolio delta as neutral as possible. In this way we do not get too upset in moves in the market up or down. As a general rule of thumb we like to keep our deltas below plus or minus 1% of the value of our portfolio.
4. Delta changes daily. In our courses we discuss another option greek called ‘Gamma’ in greater detail. Gamma is the rate of change of delta. As positions move against you the delta value will change. Always keep an eye on your overall portfolio Delta.

4.17. Long Call: What strike prices to pick?

The strike prices that you pick will depend on how bullish you are on the stock.

- **Most bullish:** Buy calls out-of-the-money. Cost less but the breakeven point will be higher reducing your probability of making a profit. Delta value will be quite low.
- **Moderately bullish:** Buy calls at-the-money. Cost more than out-of-the-money calls but the share price doesn’t have to move as much to make a profit. Delta value will be around 0.5.
- **Least bullish:** Buy calls in-the-money. Most expensive but also offer the best chance of being profitable. Delta will be higher for in-the-money calls.

4.18. Long Call: Assignment Risk

You have no assignment risk with a long call strategy.

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4.19. Long Call: Actions to take at expiry

1. If the **share price is above** the strike price at expiry, you can do two things:
 - a. Close (SELL) the call option for a profit or partial loss. 99% of the time option traders sell the options and do not exercise their rights held within the option.
 - b. Exercise your right to buy the shares. This happens less than 1% of the time.

In either of the above, the profit or loss will be similar.

2. If the **share price is below** the strike price at expiry you will lose your investment and the call options will expire worthless. There is nothing for you to do.

4.20. Long Call: Ex-Dividend

Should a stock go ex-dividend before expiry you may want to consider taking early assignment to receive the dividend for the stock. This will depend on the dividend amount.

4.21. Long Calls Versus Buying Stock Summary

[CLICK HERE](#) to view a short video.

4.22. Long Call: Our view

With every option strategy, there are pros and cons. If you consider the long call strategy versus buying the stock, the long call strategy offers a fraction of the risk and the return on investment is significantly higher.

However, depending on the strike you pick the break-even price will be higher with the long call, making it less probable that you will make a profit. Also, as you have learned with theta, call options are time wasting assets. If the share price does not move up past the breakeven point before the expiry date, you could lose part or all your investment. Finally, call options do not qualify for dividends nor do they give you voting rights in the company.

At Share Navigator, we only use the long call strategy for expiries greater than 12 months. This gives the stock more time to go up in value. We also tend to pick in-the-money strikes with a delta of at least 0.7. This will cost more but will give you a better probability of profit.

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The long call strategy is not one of the strategies we use very often. We don't like purchasing 'time' premium. For this reason, if we do have a bullish view on a stock and implied volatility is low, we prefer to use the bull call spread (an excellent strategy for novice traders).

If we are bullish and implied volatility is high we will choose credit type strategies such as the short put, the put ratio spread or the bull put spread.

4.23. Real Life Example

[CLICK HERE](#) to watch a video of a real life example of a long call option.

4.24. Long Call: Knowledge Check

Time for you to apply your knowledge.

1. Pick any stock or index that you are bullish on.
2. Login to your personal simulated trading account. Please [contact us](#) if you don't have a personal simulated trading account.
3. Buy 1 contract of an ITM, ATM and OTM Call (3 separate trades) with an expiry greater than 1 year.
4. Monitor the trades and write down as many questions that spring to mind. For example, why was one option more expensive than the other? Why is one option making more profit than the other?
5. [Contact us](#) with your questions.

5. How to Trade Long Calls on a Trading Platform

5.1. Buying Call using TWS

[CLICK HERE](#) to watch a short video showing you how to buy a call option using TWS.

5.2. Buying a call using IBKR mobile APP

[CLICK HERE](#) to watch a short video showing you how to buy a call on the IBKR mobile APP.

5.3. How to manage a long Call Trade

[CLICK HERE](#) to watch a short video outlining ways that you can manage a Long Call trade.

5.4. How to close a Long Call on TWS

[CLICK HERE](#) to watch a short video showing you how to close out a Long Call position on TWS.

5.5. How to Roll Out a Long Call on TWS

[CLICK HERE](#) to watch a short video showing you how to roll out a Long Call position on TWS.

5.6. Position Sizing with the Long Call Strategy

[CLICK HERE](#) to watch a short video outlining position sizes with a Long Call position.

6. Long Calls and the 'GREEKS'

This may be your first introduction to the Option Greeks. At first, it may appear a little daunting but please trust us after a while it becomes second nature. Many people before you have gone through our training and now trade options daily and some for a living.

We will provide a brief introduction to each Greek below. During each strategy we will also outline the effect of Delta, Gamma & Theta as it relates to each strategy.

6.1. Theta

Theta is used to track the rate of decay of the time value of an option. It is a dollar amount which tells you at what dollar amount the value of the option will erode each trading day.

6.2. Time Value Reminder Example

The time value of an option is the variable piece of the option's value. Here's an example: Suppose you identify a stock that is currently trading for \$21.35 per share, and you decide to buy the \$20 strike price Call options.

Before buying the options, you note that the ask price for the \$20 strike price Call for the current month's expiration is \$2.50 per share. There are two components in the price of the option:

1. Intrinsic value
2. Time value

The intrinsic value of the option is simply the difference between the price of the stock (\$21.35 per share) and the ITM strike price of the option (\$20.00 per share).

If the ask price for the option is \$2.50 per share, and we know that the intrinsic value of the option is \$1.35 per share, then we can easily deduce the time value component of the option (take the ask price of \$2.50 per share and subtract the intrinsic value of \$1.35 per share). This gives us a time value component of \$1.15 per share.

Now, suppose you consider the \$20 strike price Call for the same stock, just one month further out in time. In that case the stock price hasn't changed, and it's still trading for \$21.35 per share. The strike price is still the \$20 strike price option, but now the ask price for the option is \$3.50 per share. What's changed? The only difference in the price of the

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option is the time value. Since the options for next month are further away from expiration, we should expect to pay more for them.

6.3. Theta Example

Theta is the rate at which the Time Value of an option decays on a daily basis. As the option approaches its expiration date, the time value erodes more rapidly. Tracking the Theta as an option approaches expiration reveals the speed of the decay of time value.

Example below: Compare the Theta for the \$110 Calls for Apple for Jan 2018 and April 2016. You should notice that the Theta for the near-term options of -\$0.2040 is much larger than the Theta for the longer-term options of -\$0.0134.

AAPL ▾				
Call				
Bid	Ask	Theta		
1.63	1.66	-0.2040	APR 15 '16	110
4.65	4.80	-0.0520	MAY 27 '16	110
10.40	10.50	-0.0194	JAN 20 '17	110
15.65	15.95	-0.0134	JAN 19 '18	110

6.4. Theta Advantages

As we take you through Option strategies you will see how we like to use our shorter term options when we are selling Option premium. Primarily because the Theta is decaying at a higher rate. We will discuss this as we go through each Option Strategy. Theta is a friend of option sellers. Because when you sell Covered Calls or Puts for example you want the value of the option to erode. That means you could actually buy back the option you sold cheaper (assuming implied volatility remains the same). As each day passes towards expiry Theta is eroding the value of the option.

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6.5. Theta Disadvantages

If you are a buyer of options for example call options Theta works against you because you want the value of the option to rise. Theta causes the value of an option to erode as each day passes to expiry. So you are depending on the ITM (Intrinsic) Value to increase in order to make a profit. This will become apparent in the examples we give later in the long call strategy. For now all you need to know is that Theta works against you when you own options and works for you when you sell options.

6.6. Theta and the Long Call Strategy

[CLICK HERE](#) to watch a video showing you how Theta can impact the Long Call strategy.

6.7. Delta

Delta is the variable that tracks the relationship between the change in the price of an underlying stock and the change in the value of the option contracts associated with it.

Delta ranges in value from 0.00 on the low side, to a maximum of 1.00. An option with a Delta of 1.00 means that for every dollar the stock rises in price, the options will increase in value by one dollar per share. This becomes very important when you consider that most option contracts control 100 shares of stock. If the underlying stock rises \$1.00 per share in value, the "Delta 1.00" contract just increased in value by \$100.

Generally, an "at-the-money" option strike price will have a Delta around 0.50. For every dollar the stock rises, the at-the-money option will increase by 50 per share, or \$50 per contract on a 100-share contract.

The deeper in the money an option becomes, the greater the Delta, until the Delta reaches 1.00. Delta will never exceed 1.00 for a single contract. Keep in mind, the higher the Delta, the more expensive the option contract. The reverse is also true - the lower the Delta, the less expensive the option.

6.8. Delta for Long Call options are positive

Delta for Call options will always have a positive value between 0 and 1. For example, see options quote below:

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Option Chains - MSFT

Strikes Last Trading Day Exchange

Call						Description
Bid	Ask	Last	Change	Delta	Theta	
						▼ APR 15 '16
7.80	8.05	c8.05		0.8382	-0.0075	37
6.95	7.25	c7.25		0.8043	-0.0080	38
6.15	6.45	c6.45		0.7666	-0.0084	39
5.40	5.75	c5.75		0.7227	-0.0086	40
4.85	5.00	c5.00		0.6791	-0.0089	41
4.20	4.35	4.05	-0.30	0.6294	-0.0089	42
3.60	3.75	3.45	-0.30	0.5801	-0.0089	43
3.05	3.20	3.11	-0.09	0.5287	-0.0088	44
2.60	2.67	2.62	-0.22	0.4769	-0.0086	45
2.12	2.23	2.17	-0.18	0.4251	-0.0083	46

You can see for the Call options on MSFT that the Delta for the April 15th \$40 strike price is 0.7227. You also notice that the bid/ask for the Call Options is \$5.40/\$5.75.

What does this mean?

- Firstly let's imagine you bought the \$40 Calls at \$5.75. This means that you paid out \$575 per contract for the \$40 Calls on Microsoft.
- The Delta of 0.7227 means that for a \$1 rise in the share price of MSFT the value of the \$40 calls will rise by \$0.7227 per share or \$72.27 per contract.
- If we then sold the \$40 Call we would receive the Bid price \$5.40 + \$0.7227 = \$6.12 per share or \$612 per contract.
- This would leave us with a profit of \$612-\$575=\$37.
- On the flip side, if the share price falls by \$1 the value of our \$40 Call option would drop by \$0.7772 per share. Leaving us with a value of \$5.40- \$0.72=\$4.68. This would represent a loss of \$5.75-\$4.68=\$1.07 per share or \$107 per contract.

6.9. Delta for Long Put Options are Negative

Delta for Put options will always have a negative value between 0 and -1. For example, see options quote below:

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111.30 -0.74 (-0.66%)			
Description	Bid	Put Ask	Delta
▼ MAY 27 '16			
108	♦ 2.59	2.64 ♦	-0.3473
109	♦ 2.95	3.00 ♦	-0.3835
110	♦ 3.30	3.40 ♦	-0.4218
111	♦ 3.75	3.85 ♦	-0.4608
112	♦ 4.25	4.35 ♦	-0.5004
113	♦ 4.75	4.85 ♦	-0.5402
114	♦ 5.30	5.45 ♦	-0.5806

You can see for the Put options on Apple that the Delta for the May 27th \$112 strike price is -0.5004. You also notice that the bid/ask for the Put Options is \$4.35/\$4.25.

What does this mean?

- Firstly let's imagine you bought the \$112 Puts at \$4.35. This means that you paid out \$435 per contract.
- The Delta of -0.5004 means that for a \$1 rise in the share price of Apple the value of the \$112 Puts will Fall by \$0.5004 per share or \$50.04 per contract.
- If we then sold the \$112 Put we would receive the Bid price \$4.25 - \$0.5004 = \$3.75 per share or \$375 per contract. This would leave us with a loss of \$375-\$435=-\$60.
- On the flip side, if the share price falls by \$1 the value of our \$112 Put option would rise by \$0.5004 per share. Leaving us with a value of \$4.25+\$0.5004=\$4.75. This would represent a profit of \$4.75-\$4.35=\$0.40 per share or \$40 per contract.

6.10. What happens to Delta when you Sell Call & Put Options?

- **Selling Calls:** When you sell a Call Option, Delta becomes negative.
- **Selling Puts:** When you sell a Put Option, Delta becomes positive.

6.11. Delta & Probability

Delta can also be used as a rough estimate of the probability of an Option finishing In the Money (ITM). For example, an option with a Delta of 0.70 has a 70% chance of finishing ITM or having real value at expiry. An Option with a Delta of 0.25 has a 25% chance of finishing ITM. When you get to advanced trading strategies probabilities will become

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crucially important.

6.12. Portfolio Delta

Portfolio Delta is the overall Delta position on your entire portfolio of stocks and options. Each position you have in your portfolio will have a Delta Value – positive or negative. The combined Delta Value of all of your positions is your Portfolio Delta. Portfolio Delta tells you whether or not your overall portfolio has a Bullish or Bearish bias. Portfolio Delta for options we trade is linked to the S&P 500 index. For example, if we had an overall Portfolio Delta of +50, it means for a 1% rise in the S&P 500 The value of our portfolio will go up by \$50. And Vice Versa. If we had a portfolio Delta of -50, that means for a 1% fall in the S&P 500 our portfolio will go up by \$50. And vice versa.

Another way of looking at Portfolio Delta is the share equivalency of SPY, the ETF that tracks the S&P 500. If you have +50 Portfolio Deltas it is the equivalent of owning 50 shares of SPY. If you had -50 Portfolio Deltas it is the equivalent of being short 50 shares of SPY. Portfolio Delta will become critically important to helping you manage risk in your portfolio. Option Traders look at Delta constantly to rebalance risk in their portfolios.

6.13. Delta Example with the Long Call Strategy

[CLICK HERE](#) to watch a short video outlining the role of Delta with the Long Call Strategy.

6.14. Gamma - The rate of change of Delta

Delta is not a static figure it moves as share prices move. This is where we introduce you to Gamma. Look at the Option Quote below.

Call	Gamma	Delta	Description
	0.0388	0.6518	108
	0.0400	0.6112	109
	0.0410	0.5711	110
	0.0420	0.5302	111
	0.0417	0.4881	112
	0.0414	0.4469	113
	0.0409	0.4057	114

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Gamma is the rate of change of Delta for a \$1 move in the share price of the underlying stock. The above quote is for Apple. Take the \$112 Call as an example. You can see that

It has a Delta of 0.4881 and a Gamma of .0417. If the share price of Apple falls by \$1 the Delta value will fall to 0.4464 (Delta – Gamma). On the flip side, if the stock price rises by \$1. The Delta will rise to 0.5298 (Delta + Gamma). This will become important for you later when you are assessing the viability of numerous option strategies.

6.15. Gamma and proximity to expiration

As an option contract gets closer to expiry it usually results in higher Gamma. This creates additional risk in a portfolio with options that are at-the- Money in particular, prices of options can move more aggressively and thus creates greater risk. This is why you will hear us constantly saying take 50% of Max Profit (for most of our trades), this means that we are closing profitable trades early and not letting Gamma risk come into the equation. Example of higher Gamma Closer to Expiry. See chart below for different expiries for the \$112 Call.

Call	Gamma	Delta	Description
	0.2489	0.3786	APR 15 '16 112
	0.1054	0.4571	APR 22 '16 112
	0.0470	0.4892	MAY 13 '16 112
	0.0417	0.4865	MAY 27 '16 112

Notice how Gamma for April 15th is 0.2489 while Gamma for May 13th is only .0470. This has a big impact on option pricing.

6.16. Gamma and the Long Call strategy

[CLICK HERE](#) to watch the video showing you how Gamma can impact the long call strategy.

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6.17. Summary

Delta and Gamma are two very important Option Greeks. For each Option strategy that we teach we will also discuss the effect of Gamma and Theta. If you are totally new to this, it may appear daunting but please believe us.....this will become second nature to you with a little practice...we have many clients to prove it who are actively trading options!

Remember to ask us lots of questions during our weekly support web meeting.

6.18. Test Your Knowledge

At this stage it is important for you to get some practical experience in buy call options. so here is what you need to do:

1. Pick any optionable stock
2. Pick a target price for the stock to the upside out for 1 year (Don't get too bogged down in this)
3. Go to your Demo trading account
4. Look up the Call Option Quotes out at least 1 year with a Delta of 0.7
5. Pick a Call Option of your choice
6. Create a Profit and Loss table for the Call Option
7. Identify your Breakeven price
8. Identify your Maximum loss
9. Identify your profit potential (at your target price)
10. Calculate your potential ROI
11. Now do a profit and loss table if you bought the shares
12. Compare Buying the stock to Buying the Calls
13. Which strategy offers the greatest risk?
14. Which strategy offers the greatest ROI?
15. Which strategy would you prefer and why?

Share your experience on our daily market update webinars...this helps you and other members of Share Navigator. The more questions you ask ... the faster you learn!

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7. The Long Put Strategy

Explained in its simplest terms the Long Put strategy can be seen like an insurance policy that is normally used in the following scenarios:

1. You own stock and want to protect the share price against future declines
2. You don't own the stock but think its share price will fall and you want to profit from it

We are going to show you:

1. How to buy a Put Option to use as an insurance policy against shares that you own
2. How to buy a Put option to use because you think stock prices will fall
3. How to work out the breakeven, loss and profit potential
4. How to manage a Put option

With every strategy there are pros and cons. During this section we will highlight these to you. It is important that you complete the assignments. The only way to learn about options is 'to do'. You can get access to a 'Demo' trading account by joining our mentoring service. Then you will be able to practice implementing the strategies learnt. This is important.

So practice, practice, practice.

7.1. Short Strategy explained in 1 minute

[CLICK HERE](#) to view.

7.2. Long Put Introduction

The long put is a bearish strategy that allows you to participate in a stock at a fraction of the price. If the share price moves down substantially, you will benefit from that downward move in the share price.

For example, SPY shares are trading at \$225 .45 and you think the share price will fall. Rather than short the shares outright you decide to look at the put options. You notice that you can buy a put option which expires four months from today at the \$220 strike for \$4.85.

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If you buy 1 contract of this put option it will cost you \$485 (because 1 contract controls 100 shares of stock). This call option contract will give you the right to sell 100 shares of SPY at any stage between now and expiry for \$220.

If the share price falls to \$200 for example, you can (technically) buy the shares for \$200 and sell them immediately for \$220 making a \$15.15 profit (\$20 profit on stock minus the \$4.85 cost of the put option). In real life, you will simply sell the put option for a similar profit.

We will use this example throughout this strategy.

7.3. Long Put construction

The long put strategy is constructed by buying a put option. An investor with this position can be said to be 'long' a put.

Long Put Strategy = Buy a Put Option

7.4. Long Put: Debit vs. Credit

The long put strategy will always be established at a net debit. In other words, it costs you money to buy a long put.

Long Put Strategy = Debit

7.5. Long Put: SPY Example

Look at the option quotes on SPY below for an expiration 4 months from now. SPY was trading at \$225.45 at the time of this quote:

TABBED VIEW		STRIKES		SMART	SPY	100
STRIKE	PUTS			IV: 13.2%		
	DELTA	GAMMA	THETA	BID x	ASK	
220	-0.398	0.024	-0.030	4.82 x	4.85	
221	-0.422	0.025	-0.030	5.12 x	5.21	
222	-0.447	0.026	-0.029	5.46 x	5.55	
223	-0.472	0.026	-0.029	5.82 x	5.92	
224	-0.499	0.027	-0.028	6.20 x	6.31	
225	-0.526	0.027	-0.027	6.62 x	6.74	

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To establish a long put with SPY options, we might buy 1 SPY March 17th \$220 put for \$4.85. The result is we are holding 1 SPY March 17th \$220 put at a \$4.85 net debit or \$485 total.

7.6. Long Put: Expectation/Outlook

The long-put strategy should not be confused with the put protection strategy. A long-put on its own is bearish, a long-put held against a stock is considered bullish.

Long Put Strategy: Bearish

7.7. Long Put: Maximum Profit

The maximum upside profit for a long put strategy is said to be unlimited. The further the share price of the stock falls below the break-even price at expiration, the more valuable the put option becomes. We therefore cannot define exactly the maximum profit.

Maximum profit = Unlimited

7.8. Long Put: Maximum Loss

The maximum downside loss for a long put strategy is limited entirely to the net debit initially paid for it. This loss will be seen if SPY closes at or above the \$220 strike price of the long put at expiration, no matter how high the share price of SPY rises.

Maximum loss = debit paid

For the SPY March 17th \$220 long put, the maximum loss = \$4.85 debit paid, or \$485 total.

7.9. Long Put: Break-Even Price

The break-even price for a long put strategy at expiration is a closing underlying stock price (or index level) equal to the strike price of the long put minus the debit paid.

Break-even point = Strike price - net debit paid

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At expiration, the break-even price for the SPY \$220 long put would be: \$220 strike - \$4.85 debit paid = \$215.15

7.10. Long Put: Probability of Profit

One of the major drawbacks of the long-put strategy is the probability of profit before expiration. Probability of profit will be lower than 50%. In fact, the further out-the-money the put option you purchase, the less chance you have of being profitable.

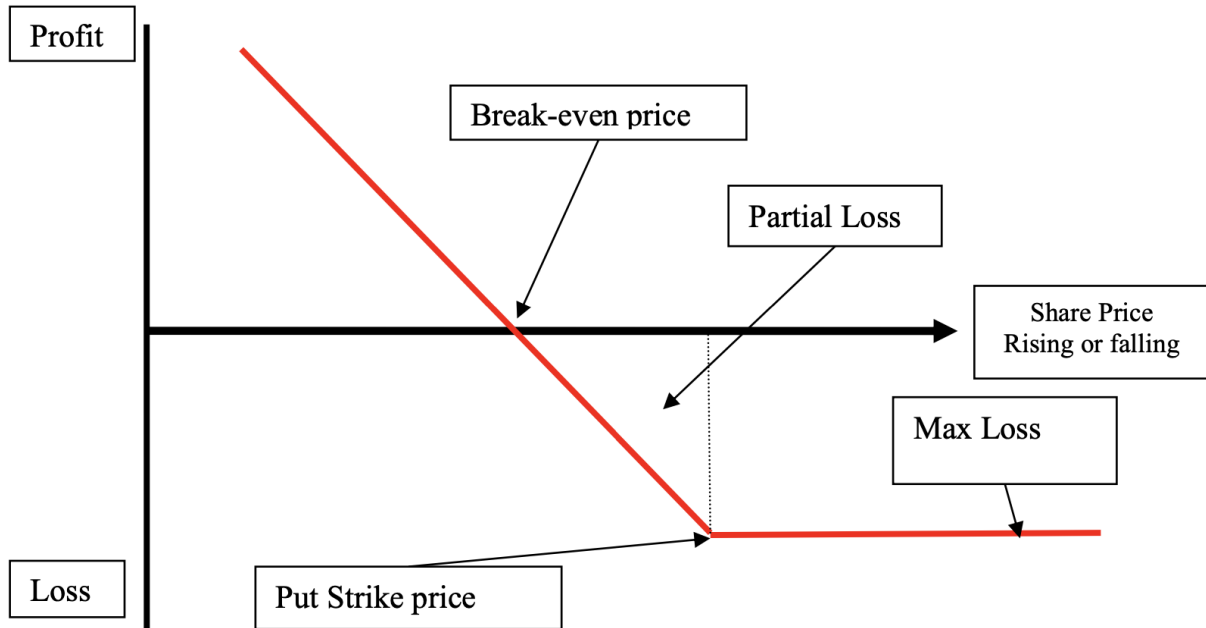
In the SPY example, the probability of profit is just 29%. You can get this number from your broker when you place the trade. The reason that the probability of profit is so low in the SPY example is because the break-even price of \$215.15 is so far away from the current share price of \$225.45. This means that the share price must fall at least \$10.30 (\$225.45 - \$215.15) between now and expiry to make a profit. This is the equivalent of a fall of 4.57%.

That is why we much prefer using the bear put spread strategy. The risk and probability profile is much better with a bear put spread.

Please note: If the share price falls soon after purchase of the long put there is a strong possibility of the long put being profitable. The reason is that there is 'time' value left in the put option. Our examples above assume that we are at expiry and no 'time' value exists. But you should still be aware of the total risks in each trade.

7.11. Long Put: Partial Loss

At expiration, if SPY closes at a point between the break-even price and the \$220 strike price, a partial loss would be seen. Below the break-even price there would be a profit.



7.12. Long Put: Profit & Loss Before Expiration

Before expiration, an investor can take a profit or cut a loss by selling the put option if it has market value which will be done at a net credit. Profit or loss would simply be the net difference between the debit initially paid for the Put Options and the credit received at its sale.

7.13. Long Put: Profit and Loss tables

[CLICK HERE](#)

It is important for you to get into the habit of creating profit and loss tables. Here is an example of a P&L table for the SPY March 17th \$220 long put strategy. Remember we paid \$485 for the long put:

SPY price at Expiration	Long \$220 Put Value	Premium Paid	Profit/Loss
\$200	+ \$2,000	- \$485	+ \$1,515

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\$202	+\$1,800	-\$485	+\$1,315
\$204	+\$1,600	-\$485	+\$1,115
\$206	+\$1,400	-\$485	+\$915
\$208	+\$1,200	-\$485	+\$715
\$210	+\$1,000	-\$485	+\$515
\$212	+\$800	-\$485	+\$315
\$214	+\$600	-\$485	+\$115
\$216	+\$400	-\$485	-\$85
\$218	+\$200	-\$485	-\$285
\$220	0	-\$485	-\$485
\$222	0	-\$485	-\$485
\$224	0	-\$485	-\$485

7.14. Long Put: Effect of Volatility

A rise in volatility has a positive effect however, usually when implied volatility is increasing the share price of the stock is falling. Any share price fall will be a positive for the put option.

7.15. Long Put: Effect of Time Decay (Theta)

Theta is the rate of decay in the 'Time Value' of an option. For a long put, theta (Time Decay) is negative. As each day passes time decay works against the buyer of the put option.

TABBED VIEW		STRIKES		SMART	SPY	100
STRIKE	PUTS			IV: 13.2%		
	DELTA	GAMMA	THETA	BID x ASK		
220	-0.398	0.024	-0.030	♦ 4.82 x 4.85 ♦		
221	-0.422	0.025	-0.030	♦ 5.12 x 5.21 ♦		
222	-0.447	0.026	-0.029	♦ 5.46 x 5.55 ♦		
223	-0.472	0.026	-0.029	♦ 5.82 x 5.92 ♦		
224	-0.499	0.027	-0.028	♦ 6.20 x 6.31 ♦		
225	-0.526	0.027	-0.027	♦ 6.62 x 6.74 ♦		

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Looking at the long \$220 put quote above. You can see that the theta value is - 0.030. This means that the time value of the put option will erode by \$0.030 per share or \$3.00 total per day. Because we own the put option we want the value to rise, theta has the effect of reducing the 'time' value of the option.

This is one of the main reasons we prefer to be option sellers (under the right market conditions) as opposed to option buyers.

[CLICK HERE](#) to watch a video highlighting the impact of Theta on the Long Put Strategy.

7.16. Long Put: Delta & Gamma

Delta is the rate of change in the value of an option for a \$1 move in the underlying share price. In our example with the SPY Long \$220 Put, you can see that the delta value is -0.398. Delta for put options is a negative number because puts go up in value as the share price falls and vice versa.

This means that the value of the SPY long \$220 put will go down by \$0.398 per share or \$39.80 total for a \$1 rise in SPY and vice versa.

We can also consider delta as being short 39.8 shares of SPY. Think about it...if SPY fell by \$1 and we were short 39.8 shares we would make a profit of \$39.80. The exact same as the long \$220 put option position.

1. Positive delta is a bullish bias
2. Negative delta is a bearish Bias
3. You should always consider the overall delta position in your portfolio – we like to be option sellers and keep our overall portfolio delta as neutral as possible. In this way we do not get too upset in moves in the market up or down. As a general rule of thumb we like to keep our deltas below plus or minus 1% of the value of our portfolio.
4. Delta changes daily. In our courses we discuss another option greek called Gamma in greater detail. Gamma is the rate of change of delta. As positions move

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against you the delta value will change. Always keep an eye on your overall portfolio delta.

[CLICK HERE](#) to watch a video on the impact of Delta on Put Options.

[CLICK HERE](#) to watch a video of the impact of Gamma on Delta for the Long Put strategy.

7.17. Long Put: Picking the strike prices.

Some long puts can be considered more bearish than others. The degree of bearishness depends primarily on the strike price of the put, which determines how much the underlying stock (or index) needs to fall for maximum profit to be realized at expiration.

- Most bearish: A put that is bought out-the-money. This will cost less but the probability of profit is also less.
- Moderately bearish: A put that is bought at-the-money. This will cost more than an out-the-money put but will have a higher probability of profit.
- Least bearish: A put that is bought in-the-money. This will be the most expensive but offers a higher probability of profit.

7.18. Long Put: Assignment Risk

You have no assignment risk with a long put strategy.

7.19. Long Put: Actions to take at expiry

At expiry, if the share price is below the strike price, you have two options:

1. At expiry, if share price is below the strike price: Close the put option for a profit/partial loss. If you don't close the trade, your broker will automatically sell the shares at the strike price for you. If you do not already own the shares you will short the shares when the market opens on the following Monday.
2. At expiry, if the share price is above the strike price, you simply do nothing as the put options are worthless. The put options will disappear from your account and you will make the maximum loss.

7.20. Long Put: Our view

With every option strategy, there are pros and cons. Buying a put option is a good way to profit from anticipated falls in a share price. However, we very rarely (if ever) use it.

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We much prefer using a bear put spread when implied volatility is low. The reason is that the sale of the short call in the bear put spread reduces the risk and increases the probability of profit. This will still give us a bearish directional bias but reduces the cost of the long put.

7.21. Long Put: Knowledge Check

Time for you to apply your knowledge.

1. Pick any stock or index that you are bullish on.
2. Login to your personal simulated trading account. Please [contact us](#) if you don't have a personal simulated trading account.
3. Buy 1 contract of a Put on any stock or index with an expiry of 2-3 months.
4. Monitor the trade and write down as many questions that spring to mind.
5. [Contact us](#) with your questions.

7.22. Long Put Explained in 6 minutes

[CLICK HERE](#) to watch the 6 minute video explaining the Long Put strategy.

7.23. Test Your Knowledge

At this stage it is best if you start practicing for real so this is what we want you to do:

1. Pick any option able stock that you are Bearish on
2. Create a Long Put Strategy
3. Do a profit & Loss table
4. Place the trade in a 'Simulated' or 'Demo' account with an online broker
5. Identify your breakeven
6. Identify your Max Loss
7. Identify your Max Profit

Share your experience with other members on our daily support web meetings.

Note...you must be on the mentoring plan to avail of our support services.

7.24. Please leave a Review on Google

[CLICK HERE](#) to leave a review of this course on Google. We would love to get your feedback. Thank you.

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8. How to Trade Long PUTS on a Trading Platform

8.1. How to Buy Put options on TWS

[CLICK HERE](#) to watch the video showing you how to buy put options on TWS.

8.2. How to manage a Long Put trade

[CLICK HERE](#) to view.

8.3. How to Roll out a long Put on TWS

[CLICK HERE](#) to view.

8.4. How to Close a long Put Position on TWS

[CLICK HERE](#) to view.

8.5. Position Sizing with Long Put Options

[CLICK HERE](#) to view.

8.6. How to use Put options to Insure a Stock Position

[CLICK HERE](#) to view

8.7. P&L tables for Insuring a Stock using Long Puts

[CLICK HERE](#) to view

9. Mentoring Service

Embark on a streamlined journey to financial proficiency with our Stock and Options Mentoring Service. Elevate your learning curve by enlisting a **personal** mentor who will guide you through the intricacies of stock and options trading. Our comprehensive program offers:

- Weekly one-on-one mentoring sessions, ensuring personalized attention and targeted skill development.
- Gain a competitive edge with daily live market updates
- Exclusive access to curated stock watchlists
- Insights into our meticulously crafted options and futures trades.
- Save valuable time, effort, and money as you fast-track your education with our dedicated support system.

With daily assistance and a wealth of resources at your fingertips, you'll not only navigate the markets more confidently but also accelerate your journey toward financial success.

Join us in unlocking the full potential of your trading endeavors.

[CLICK HERE](#) to book a FREE Mentoring session to find out more.

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