

# Options Investing Guide

*An intro for stock investors who want to  
pocket extra returns while holding...*



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# Introduction

You might have heard of Options Trading, and how savvy investors use it to maximise their returns.

This ebook aims to give you the basics of how this works with examples, along with two beautifully simple Options strategies (inspired by Warren Buffett's option strategy) that you can use to boost your investing returns.

## Warning:

While Options can deliver extra profits, it can also result in [unprecedented losses](#) if you do not know what you are doing. Do your own due diligence, manage your own risks and avoid using it if you do not understand its mechanics well.

# What are Options?

An option is a contract between a buyer and a seller.

It gives the buyer the **right to buy** (call options) **or to sell** (put options) the underlying assets at a specific price on or before a certain date to the seller.

Options are a powerful tool that can be used by investors as a hedge from market crashes, while also generating recurring income.

# Common Options Trading Terms

Before we proceed, here're some terms you should know.

- **Strike Price:** price at which a put or call option can be exercised.
- **Expiry Date:** date on which your option will expire.
- **Premium:** current market price of the option contract
- **Call Option:** option that gives the buyer the **right to buy**
- **Buy Option:** option that gives the buyer the **right to sell**
- **In the Money (ITM):** refers to an option that possesses intrinsic value
- **Out of the Money (OTM):** refers to an option that only contains extrinsic value
- **At the Money (ATM):** when an option's strike price is identical to the current market price of the underlying security

# Two Types of Options

At its core, there are two types of options: Call and Put options. You can choose to either buy or sell them.

## Types of Options

	Buyer	Seller
Call	Have the <u>rights to buy</u> 100 shares of a stock at a specific price <i>on or before</i> an expiration date.	<u>Collects a premium and commits to selling</u> 100 shares of a stock at a specific price <i>on or before</i> an expiration date, <i>if options are exercised</i> .
Put	Have the <u>rights to sell</u> 100 shares of a stock at a specific price <i>on or before</i> an expiration date.	<u>Collects a premium and commits to buying</u> 100 shares of a stock at a specific price <i>on or before</i> an expiration date, <i>if options are exercised</i> .

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I'll explain the four possible scenarios using Microsoft as an example. In this example, let's assume that Microsoft is currently trading at \$260.



# How Call Options work *(as a Buyer)*

A call option gives a buyer the right to **buy 100 shares** of a stock at a specific price on or before an expiration date from a seller.

Here's an example of how a call option works.

Let's assume that Microsoft is currently trading at \$260. If **I believe that its share price will go up** within the next 2 months, I can buy a call option expiring two months for now.

More specifically, I would **buy a call option with 60 days to expiry, at a strike price of \$270** (the price I believe Microsoft would hit). Doing so I would pay a premium of \$430 for each contract (*do note that each contract represents 100 shares*).

60 days later...

If Microsoft *remains below my strike price of \$270*, I will lose my premium. There is no point in converting my options contracts to shares since I can get the shares from the stock market at a price cheaper than \$270.

However, if Microsoft share price were to *shoot up beyond \$270 plus my premiums paid*, my options would become profitable. I can exercise the options to convert them into shares.

That said, most Options traders usually sell their options for a profit, rather than converting them into shares.



Source: Quantinsti

As a buyer in this Call Options scenario, you are exposed to:

- **Max loss** = \$430 + commission fees
- **Breakeven point** = \$270 + \$4.30 = \$274.30
- **Profit if Microsoft hits \$280** =  $(\$280 - \$270) \times 100 \text{ shares} - \$430 \text{ premium} = \$570$
- **Max profit** = Unlimited (*assuming Microsoft's price has the ability to go to the moon*)



# How Call Options work (*as a Seller*)

Selling a call option allows you to **collect the premium from the buyer**.

If it does not reach the intent strike price, the seller would be able to keep this premium. However, if the stock shoots up in value, the option seller would have to sell its shares to the buyer at a loss. (If options are exercised.)

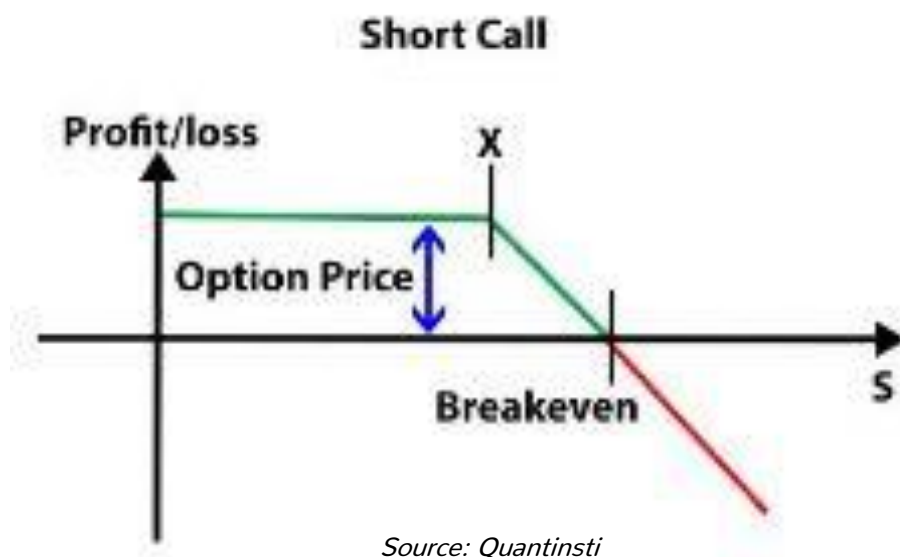
Using the same scenario as above, here's how it would play out if you are the seller instead of the buyer of call options. As a seller, you believe that **Microsoft would not increase to \$270** within the next two months so you are more than willing to sell the call options.

More specifically, you would **sell a call option at a strike price of \$270 with 60 days to expiry**. By doing so, you collect \$430 for each contract (noting that each contract represents 100 shares).

60 days later...

If Microsoft indeed *stayed below \$270*, you would get to keep the premium given to you at the start since it is unlikely the buyer would exercise it.

However, if Microsoft share price were to *shoot up beyond \$270 plus premiums paid*, your options would now be making a loss and the buyer could choose to buy your shares over at \$270. Even if the current price for Microsoft is \$280.



As a seller in this Call Options scenario, you are exposed to:

- **Max loss** = Unlimited
- **Breakeven point** =  $\$270 + \$4.30 = \$274.30$
- **Max profit** =  $\$430 - \text{commission fees}$

This is the main reason why you do not want to sell naked call options. A jump in share price would result in a huge loss!

# How Put Options work *(as a Buyer)*

A put option gives a buyer the right to **sell 100 shares** of a stock at a specific price on or before an expiration date from a seller.

Now here's an example of how a put option works, assuming once again that Microsoft is trading at \$260.

If I **believe that Microsoft share price would drop** in the next two months, I can choose to buy a put option expiring two months for now.

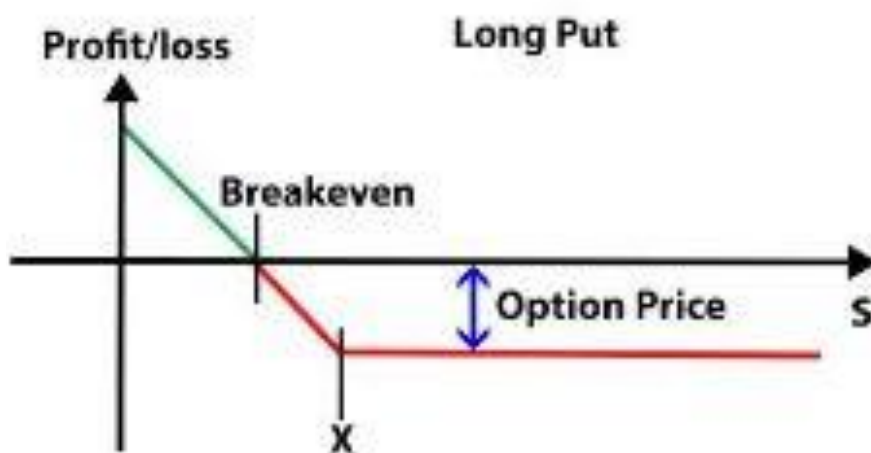
More specifically, I would buy a put option **with 60 days to expiry, at a strike price of \$250** (the price I believe Microsoft would at least drop to). Doing so I would pay a premium of \$655 for each contract (noting that each contract represents 100 shares).

60 days later...

If Microsoft *remains above my strike price of \$250*, I will lose my premium. There is no point in selling my shares to the options seller, since I can sell them on the market for a price higher than \$250.

However, if Microsoft share price were to *drop beyond \$250 minus my premium paid*, my options would become profitable. I can exercise them to sell my shares at a higher price than what is trading on the market.

Note: most Options traders usually sell their options for a profit rather than converting them into shares.



Source: Quantinsti

As a buyer in this Put Options scenario, you are exposed to:

- **Max loss** = \$655 + commission fees
- **Breakeven point** =  $\$250 - \$6.55 = \$243.45$
- **Profit if Microsoft drops to \$240** =  $(\$250 - \$240) \times 100 \text{ shares} - \$655 \text{ premium} = \$345$
- **Max profit** = till Microsoft drops to \$0, which is almost impossible

# How Put Options work (*as a Seller*)

Selling a put option allows the seller to **collect the premium from the buyer**.

If it does not reach the intended strike price, the seller would be able to keep the premium. However, if the stock drops in value, the option seller would have to buy shares from the options buyer at a loss. (If options are exercised.)

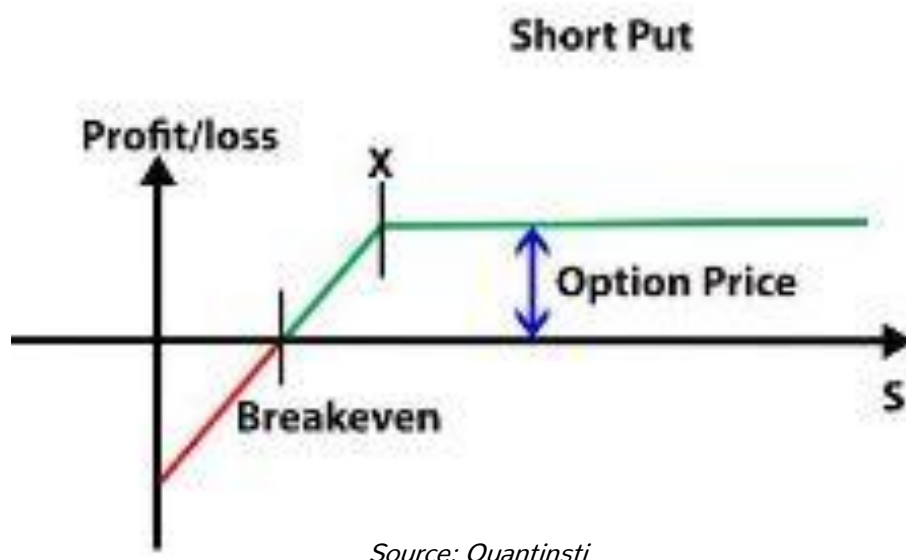
Likewise, let's use the same scenario as above, from the POV of the seller.

As a seller, you believe that **Microsoft would stay above \$250** within the next two months so you sell the put option to the buyer above. More specifically, you sell **a put option at a strike price of \$250 with 60 days to expiry**. By doing so, you collected \$655 for each contract (noting that each contract represents 100 shares).

60 days later...

If Microsoft indeed *stayed above \$250*, you would get to keep the premium given to you at the start since it is unlikely the buyer would exercise it.

However, if Microsoft share price were to *drop below \$250 plus premium paid*, your options would now be making a loss and the buyer could choose to sell their shares to you at \$250 per share. Even if the current price for Microsoft is lower than \$250.



As a seller in this Put Options scenario, you are exposed to:

- **Max loss** = till Microsoft drops to \$0
- **Breakeven point** =  $\$250 - \$6.55 = \$243.45$
- **Max profit** = \$655 – commission fees

Similarly, you should not sell a naked put options sudden drop in share price would result in a huge loss.

Sounds easy?



Well, the above is only one part of the options pricing mechanism.

It has only accounted for the **intrinsic (inherent) value** of the options while its **extrinsic** value has been excluded.

## What is the “Extrinsic Value” of an Option?

Well, extrinsic value is the difference between the market price of the options and its intrinsic value.

In other words, it is the ‘**hope value**’ – the hope that the options would reach the strike price.

This is determined by the time left till the option contract expires aka the ‘**time value**’ and its implied volatility aka the ‘**degree of price swings**’.

- **Time Value**

Usually an options contract with a longer time frame has a higher premium due to the higher probability that the strike price will be hit before expirations.

As a contract nears its expiry date, it starts to lose its time value as there is less time for the underlying stock to move in the desired direction.

- **Implied volatility**

When the underlying stock has higher implied volatility, it means that its price fluctuates substantially. This poses a greater risk to options sellers as stocks with higher implied volatility have a higher probability of hitting the strike price.

As such, stocks with higher implied volatility tends to have a higher extrinsic value and are traded at a higher premium.

At the end of the day, as an option reaches its expiry, the extrinsic value would drop to \$0, leaving only the intrinsic value of the option, aka its true price.

# Warren Buffett's Options Strategy

## How does Buffett use Options?

Berkshire Hathaway uses a Put Selling strategy.

They sell put options across 4 major indices:

- S&P 500 (US)
- FTSE 100 (UK)
- Euro Stoxx 50 (Europe)
- Nikkei 225 (Japan)

Their Put options contracts typically have a long time horizon of more than 15 years and the options are only exercisable at expiry.

**Bummer...**

Such options contracts are not available to the retail investor.

Let's be clear. There's no way we will be able to sell 15-year puts like Berkshire Hathaway. Hence, the above-mentioned strategy would not work for retail investors like us.

Nonetheless, there is another way to use the same strategy known as the Cash-Secured Puts strategy which retail investors can access in the listed market.

This strategy is also used by Warren Buffett and is useful for investors who want to get paid while waiting to buy a stock at a predetermined price.

By repeating this strategy, you can repeatedly make money from the regular premium and also have a chance to buy your favourite stock at a discount. Not too shabby right?

Here's how it works:

# Options Strategies for the Stock Investor

## 1 – Cash Secured Puts Strategy

Aka Buffett's Options Strategy for Retail Investors.

Selling cash-secured puts essentially means selling a put option while ensuring you have the required cash to back it up, should the options get exercised.

This is a useful strategy if you want to buy fundamentally good companies at a discount.

Here's a scenario to help illustrate how it works.

Let's say you have identified Nike as a fundamentally good company with growing revenue and a strong balance sheet.

However, at the current price of \$132, you think it is still expensive and you are only willing to buy if it drops to \$123 (7% decline).

Instead of waiting and refreshing the charts every night, you decide that it's better to get paid while you wait.

Hence, you decide to sell a put option with a strike price of \$123, preferably with a date to expiry of 30 days since options decay much faster in the last 30 days).

By selling this put option, you will receive a premium of \$100 per contract.

As we get nearer to the expiry date, if Nike stays above \$123, you get to keep the premium of \$100. However, if Nike's share price were to drop below \$123, you would be able to purchase Nike stock at \$122 ( $\$123 - \$1$  options premium received) which is a great discount as compared to the initial price.

Win-win for you!

### ***Potential Risk of Cash Secured Put Strategy***

As explained above, you're going into a Cash Secured Put option because you want to buy the stock at a discount.

This means that you may be assigned with the stock if prices drop below your strike price. Hence, you have to ensure you have the required capital before using this strategy.

The main risk is when you try to do this without having sufficient cash to back you up. That would efficiently become a naked put, which can be dangerous and lead to all the scary horror stories we have heard about options and margin calls.



In our scenario above, for each contract, you need to have at least \$12,200 ( $\$122 \times 100$  shares) in your account ready to buy the Nike shares.

With a premium of \$100 and a buying power of \$12,200, the monthly return is around 0.8%. Annualizing it, we would be getting around 9.8%, just to wait for a stock to drop to our ideal buy price.

### ***Your Mileage May Vary***

Actual returns may vary depending on:

- the strike price you choose and,
- the volatility of the stock

The nearer your strike price is to the current stock price, and the more volatile the stock, the higher the premium you will get. But that also means there's a higher chance of the options getting executed.

For the example above, the put option has a delta of 0.21 which means it has a 21% chance of getting exercised.

## 2 – Wheel Option Strategy

There are many ways to profit with options, and a good student must surpass his mentor.

Instead of stopping at the cash-secured put strategy, let's bring our options trading one notch higher with the wheel option strategy.

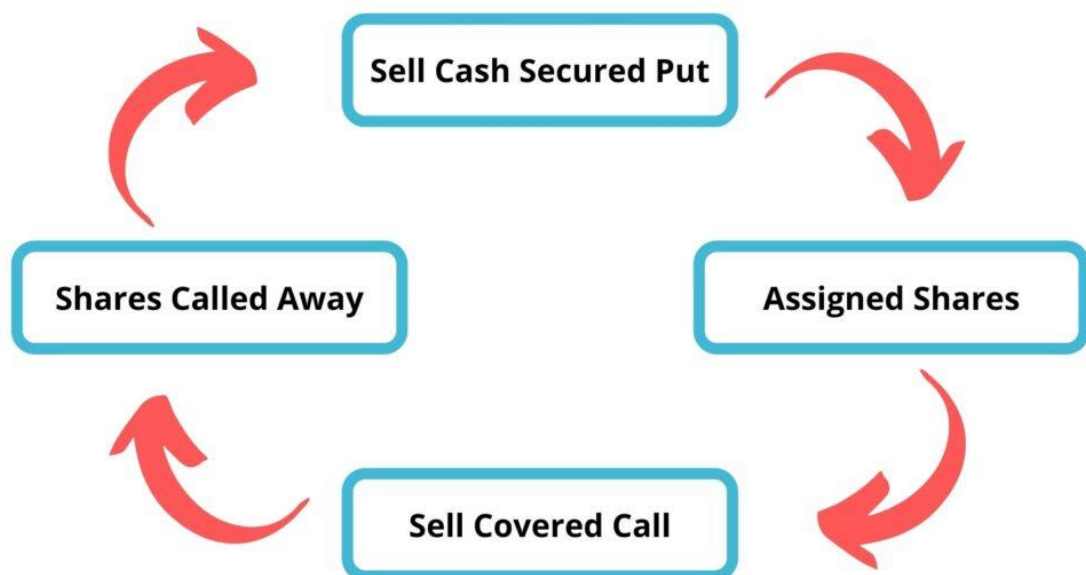
### ***What is the Wheel Option Strategy?***

The Wheel Option Strategy is an options strategy is made up of two parts:

Selling cash-secured puts to collect the premium. This is done repeatedly till we are assigned with the shares of the underlying stocks.

Sell covered calls to collect even more premium till our shares get called.

Rinse and repeat.



## ***How to execute the Wheel Option Strategy***

### **1) Sell Cash Secured Puts**

The first step is to sell a cash-secured put as mentioned above.

Doing so, we will collect the premium from selling the put options. Using Nike as an example again, we will collect \$100 premium per contract, with a date to expiry in 30 days.

By the end of the month when the options expire, one of the two scenarios will happen.

If Nike share price stays above \$123, which has a 79% probability base on its Delta, we just keep the premium of the options and repeat by selling another put options to collect more premium.

If Nike share price drops below \$123, we will be assigned with Nike shares. Once you are assigned the Nike shares, you will proceed to the next step.

## **2) Buy assigned shares**

As Nike share price drops to your strike price, you would be assigned with its share using the cash you have allocated previously.

For each contract, you will receive 100 Nike shares at \$123 per share. As such for 1 contract it would be \$12,300.

This is where the basic cash-secured put strategy ends. But the subsequent steps would complete the loop to form the wheel strategy

## **3) Sell Covered Calls**

As a proud owner of 100 Nike shares, you can now sell call options against your shares with a covered call option.

In this example, we will sell a 30 date to expiry call option with a delta of 0.40, meaning it has a 40% chance of being executed.

At the current price, we will be able to collect \$450 per contract. By the end of the month, either of these two scenarios would happen:

- If Nike remains below the strike price, you will retain the share and can sell another covered call options for additional premiums.
- If Nike rises above your strike price, your Nike shares will be called over and would be sold to the options buyer, at your strike price.

#### **4) Sell your share**

As your shares get called away, you will receive the cash from the sale while also keeping the premium you had initially received.

With your cash freed up, you can repeat the whole cycle again by selling a new cash-secured put.

Your actual returns would vary depending on the underlying stocks, the implied volatility, and the Delta at which you sold the options at.

A safe estimate would be about 2% to 3% return a month which would annualise to 24% to 36%.

## ***Potential Risk of Wheel Option Strategy***

Nonetheless, this strategy does come with risk.

As with any stock, if the share price dips after you have been assigned, you would be sitting with an unrealised loss.

For this reason, this strategy should only be used on fundamentally strong stocks that are likely to rise in value in the long run.

For a start, look for companies that have strong economic moats and have a huge market cap.



# Option Greeks

All in all, intrinsic and extrinsic factors can be measure by four indicators, collectively are known as the “Options Greeks”.

## *Theta*

Theta measures the **rate of time decay** of an option contract.

As time passes, options start to lose their value, this decay tends to accelerate as the options near expiry as the probability of hitting the strike price is reduced.

By looking at the Theta of a particular options contract, we can determine the rate of this decay, which allows the seller and buyer to weigh the risk and reward of trading that contract.

For example, an option contract with a Theta of -1.5 is losing \$1.50 in value each day.

## ***Delta***

Delta measures the **change in option premium as a result of the change in the prices of the underlying securities.**

The Delta value can range from -1.00 to 0 for Put options and 0 to 1.00 for Call options.

Put options have a negative relationship with the price of the underlying asset thus their delta are negative.

Whereas Call options on the other hand, have a positive relationship with the price of the underlying asset.

If a call option has a Delta of 0.50, a \$1 increase in the price of the underlying asset will result in a \$0.50 increase in the options price.

Conversely, if a put option has a Delta of -0.50, a \$1 increase in the price of the underlying asset will result in a \$0.50 decrease in the options price

Note: In-the-money options (*options at their intended strike price*) tend to have a higher delta as compared to out of the money call options.

Delta is **also commonly used to determine the probability of an option to expire in the money.** As such, a call option with a Delta of 0.25 has roughly a 25% chance of being profitable.

## *Gamma*

The Delta of an option changes over time and this is measure by Gamma which measures the **rate of change of Delta over time**. (If you studied physics, Gamma is akin to acceleration while Delta is the velocity).

Unlike Delta, Gamma remains constant and thus is useful to **determine the stability of an option price**.

Gamma is at its highest when the option is at the money. If an option has a Gamma value of 0.20, for every \$1 increase in the underlying stock, a call option Delta would increase by 0.20 while a put option Delta would decrease by 0.20.

Another way to think of it is that, Delta measures the probability of the options being in the money while Gamma measures the stability of this probability over time.

## ***Vega***

Vega measures an option's **sensitivity to implied volatility**.

We have mentioned how the volatility of the underlying stock has a certain impact on the option price. Vega seeks to measure how much this price will increase or decrease, as a result of the change in the implied volatility of a stock.

In general, an option seller would benefit from a fall in implied volatility because, lower implied volatility means a lower probability of hitting the strike price, which is what an option seller wants to achieve. The reasoning is reversed for options buyers.

# Conclusion

In this quick guide, we've covered the fundamentals of Options trading and how stock investors can use it to pocket extra returns.

I hope it'll be a great starting point to help you make your money work harder for you, and to grow your wealth faster.

If you'd like examples of [how real investors use options to boost their returns, join our live webinars to learn directly from experienced investors who are actively using options in the live markets.](#)

Do remember that options are complex instruments, if you are still unsure of what you have just read, it may be a better option (no pun intended) to read up more before attempting to use options as an investment instrument!

All the best!



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