INVESTMENT STRATEGIES IN OPTION TRADING

Abstract

In this paper, everyone will know all the sways and outs of stock options, from introductory puts and calls to further fantastic straddles and spreads. By the end of this paper, you'll have a complete understanding of trading options and be suitable to put them to use in your portfolio enforcing both simple and more advanced strategies. Included are numerous real-world and easy-to-follow exemplifications so you'll be suitable to easily understand each of the principles and strategies bandied in action. Eventually, we'll claw a little into the psychology of investing and its significance in knowing which way the request is going and how this can help you better time your investments for indeed further gains.

Keywords: Investment, straddles and spreads, principles and strategies.

Author

Dr. Anupam Kumar Pandey
Assistant Professor (Commerce)
Directorate of Online Education
Sikkim Manipal University
SMIT Campus
Majitar, Rangpo (Sikkim), India.
anupamsarnath@gmail.com

I. INTRODUCTION

An option is a financial derivative that gives the right to the option holder to either sell or buy an underlying asset at a pre-specified date (expiration date) and at a pre-specified price (strike price). The option seller must fulfil the transaction as and when the option holder demands (exercise or not to exercise decision rests with the option holder). The option writer receives a reward, known as "premium" for selling this right to the option buyer.

Many people view options as a risky investment, and even experienced investors may be hesitant to invest in them. Many people view options as something that is only for those with a lot of money, which is why many beginners are wary of them.

Options are versatile investment options that can be used by all investors, regardless of experience or risk tolerance. They are a great way to boost your portfolio's leverage and make even more money in the stock market - whether the market is going up or down. Options can also be used as an insurance policy to protect your investments in case of a market downturn. Overall, options are a powerful tool that every investor should understand and potentially use.

An option is a legally binding agreement that grants the buyer the privilege to purchase or sell an underlying asset at a predetermined price and date, without being required to do so. Options come in a variety of shapes and sizes and can be bought and sold on exchanges like stocks. Options can also be created in contracts between two parties. Options can be a valuable tool for hedging or speculating on the price of an underlying asset. They can also be used to buy an asset at a lower price than what it is currently trading for, and sell it at a higher price. When an option is purchased, the purchaser has the right, but not the obligation, to buy the underlying asset at the specified price on or before the option's expiration date. The option's expiration date is typically set several weeks or months in the future. If the purchaser exercises their right to buy the asset, they take on the obligation to do so at the price set by the option's terms

II. OBJECTIVES OF THE STUDY

- To study the various methods of finding the right options for trade.
- To study the advantages and disadvantages of options trading.
- To understand the Option Pricing Models used by investors.
- To study the strategies of options trading.

III. TYPES OF OPTION

1. **Call Option:** A call option gives the buyer the right, but not the obligation, to purchase the underlying asset at a pre-determined price and a specific date. Investors who purchase call options are typically bullish and anticipate good market returns in the near future.

2. **Put Option:** A put option is an agreement between a buyer (then holder) and the seller (put option writer) whereby the buyer has the right, but not the obligation, to sell the underlying asset (stock, commodity, currency, etc.) at a pre-specified price (strike price)

and on a pre-specified date (expiry date). Investors who purchase put options will be bearish in nature, expecting the market to go down in the near future with decent returns.

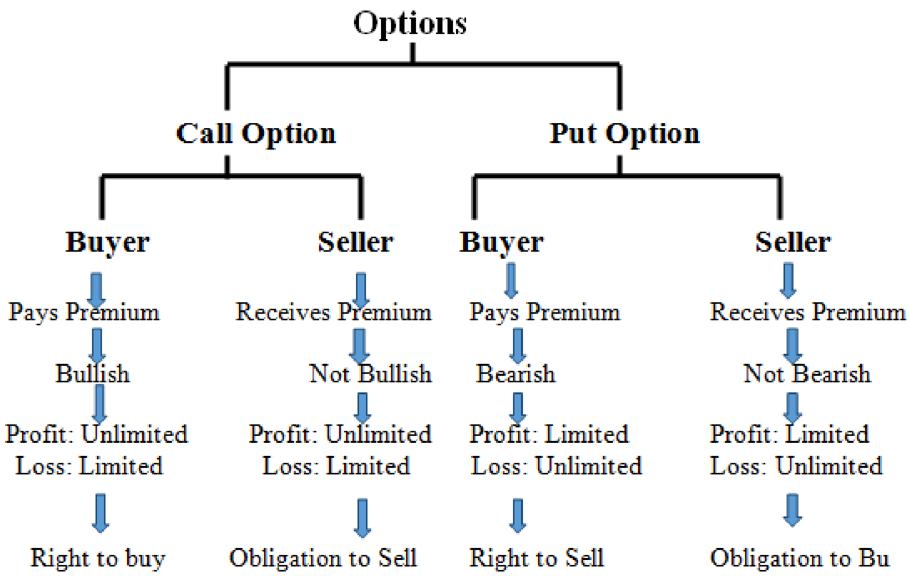

Figure: 1

3. **Moneyness of an Option:** Comparing the spot price with the strike price at the expiry date, Options will be classified under 3 categories:

   In the Money:
   - **Call Option:** Strike price is less than the spot price **(Strike Price < Spot Price)**
   - **Put Option:** Strike price is greater than spot price **(Strike Price > Spot Price)**

   At the Money:
   - **Call Option:** Strike price is equal to the spot price **(Strike Price = Spot Price)**
   - **Put Option:** Strike price is equal to the spot price **(Strike Price = Spot Price)**

   Out of the Money:
   - **Call Option:** Strike price is greater than spot price **(Strike Price > Spot Price)**
   - **Put Option:** Strike price is less than the spot price **(Strike Price < Spot Price)**

IV. ADVANTAGES OF OPTION TRADING

1. **Financial Leverage:** One of the primary benefits of options trading is the potential for substantial profits without requiring a significant upfront investment. This is largely due to the utilization of financial leverage, which allows investors to achieve greater returns while committing only a small amount of capital at the outset. By leveraging their investments, traders can maximize their gains while minimizing their initial financial risk.

2. **Hedging (Risk Limitation):** Options offer a significant benefit to investors by enabling them to protect their positions from price fluctuations. This is particularly useful when investors want to maintain their underlying positions but still safeguard them against

potential losses. Therefore, options can serve as a useful tool to hedge against significant price drops.

V. DISADVANTAGES OF OPTIONS TRADING

1. **Levels of Risk:** Trading options involves two different levels of risk, depending on whether you are the holder or writer of the option. When you hold an option, the primary risk is losing the entire premium you paid for it. If the option expires without value, you will have lost your entire investment. Conversely, if you are writing the option, the level of risk is much higher. For instance, if you write uncovered calls, there is no limit to your potential loss, as the underlying security could increase to an extremely high level.

2. **Intrinsic Value:** When buying a stock, there is a definite inherent worth, but when it comes to options, the situation is distinct. If an option is currently out-of-the-money or at the money, its intrinsic value is non-existent. The only worth it possesses is its time value, which constantly decreases as it approaches its expiry date.

VI. TIME DECAY

One of the risks that only applies to options is time decay, which means that as an option contract nears its expiration date, it loses value at an increasing rate. Unless it is exercised in the money, the option will have no value once it reaches its expiration date. If the underlying security experiences unexpected changes during the contract period, the investor may lose their entire investment capital. Unlike stocks, waiting it out is not a viable option, which is why options are referred to as wasting assets.

VII. TAXES

When investing in options, it's important to take into account the tax implications of your trades. Since options are considered short-term investments, they are taxed differently than longer-term investments. However, if you experience losses on your options, they can be used to offset gains in other investments, potentially working to your advantage. To determine the best tax-saving strategy, it's recommended to seek advice from a tax advisor.

1. Finding The Right Options Trade

- **You can look at a small group of stocks or exchange-traded funds (ETFs) on a regular basis to see what's happening in the market:** Don't look at hundreds of names on a daily or weekly basis because in those cases you can be left trading names that you aren't familiar with. You should focus on a small list of names that you know well over time. This way, you can easily determine whether you are bullish, bearish, or neutral without spending a lot of time each day looking at stock charts.
- **The charts on your watch list will show you what levels the stock is at, what direction it's headed, and whether it's overbought or oversold:** To help you figure out if stocks are overvalued or undervalued, look at the charts for each product on your watch list. For some stocks, the charts may show that the stock is overvalued, meaning that the price is too high and may be about to fall. For other stocks, the

charts may show that the stock is undervalued, meaning that the price is too low and may be about to rise.

- **When looking at the levels of volatility, we can determine whether it is high or low:** To determine the level of volatility, we look at how much it changes from day to day. A high level of volatility means that the price changes a lot, while a low level of volatility means that the price changes less.
- **We can choose different options to see what works best for us:** We looked at charts of products on our watch list to decide if we wanted to be bullish, bearish, or neutral. This helped us decide which strategy to follow (position size, options strategy). Once we had an opinion on what we thought the stock or ETF was going to do, we looked in our playbook to follow the guidelines for each strategy.

2. Option Pricing Models

- **Black-Scholes Model: The** Black-Scholes Model is widely utilized for pricing options and is considered one of the most popular models in this field. It was created by Fischer Black, Myron Scholes, and Robert Merton in 1973, and is primarily employed for determining the price of European options. The equation for this model is intricate, and many traders prefer to use online options trading calculators rather than performing the calculations manually.
- **Cox-Rubenstein Binomial Option Pricing Model:** The model being referred to is a modified version of the Black-Scholes formula that incorporates the underlying security's value over a period of time, rather than just at the expiration date. This makes it a popular choice for valuing American options, which can be exercised at any point during the contract period. While manually calculating this formula may not be practical for most investors, there are numerous online calculators available to assist with the process.
- **Put/Call Parity:** Put/call equality alludes to the relationship between put and call alternatives with the same strike cost and close date. It is utilized as it were for European-style alternatives. It states that "the esteem of a call alternative, at one strike cost, suggests a reasonable esteem for the comparing put and bad habit versa." Fundamentally, the rule states that the choices and basic stock positions must have the same return. Something else, arbitrage, or the capacity to benefit from cost fluctuations, would emerge and a speculator seems possibly benefit hazard free. Put/call equality is utilized as a straightforward test to see on the off chance that choices are estimated reasonably. Most online exchanging stages offer an instrument for dissecting put/call equality.

- **Option Trading Strategies**

Neutral Strategies	Strategies for Bulls	Strategies for Bears
Butterfly Spreads	Bull Call Spread	Bear Call Spread
Calendar Spread	Bull Put Spread	Bear Put Spread
Collar	Collar	Long Put
Iron Condor	Covered Call	Naked Call
Married Put	Long Call	Short Call
Straddle	Married Put	
Strangle	Short Put	

- **Call Buying:** Buying call choices may be a well-known technique for all levels of financial specialists. In this technique, you purchase call choices on a stock simply accept is headed higher. In case the stock cost is higher than the strike cost also the premium paid by the termination date, at that point you may make a benefit. In case you're off-base, at that point you possibly lose your whole premium.
- **Put Buying:** Put buying is much the same as call buying but in this case, you accept the stock is headed descending. A financial specialist would utilize this technique as protection against misfortunes on resources as of now claimed or to create a benefit in a bear advertise. On the off chance that you accept the advertisement or a specific stock, is headed down, at that point, this would be a great procedure to consider. This technique is regularly utilized by stock proprietors to bolt in an offering cost and secure themselves against stock decays.
- **Covered Call:** Another straightforward procedure is to type in a secured call. In this clear methodology, you'd offer (compose) a call option for stocks that you simply as of now claim, or buy offers at the same time as you type in the call, known as a buy-write.
- **Married Put:** A technique in which you purchase a put alternative on a stock that you now possess (or purchase at the same time as the put) is known as a hitched put. A financial specialist would utilize this technique to secure against misfortunes on the off chance that the stock cost drops significantly. It capacities fundamentally as a protection arrangement.
- **Spreads:** A spread may be a procedure that includes two exchanges, regularly executed at the same time. Spreads are a small more progressed than the straightforward methodologies secured so distant, but they are useful tools and well worth learning around. The foremost common type of spread is vertical spread, in which one choice contains a higher strike cost than the other. In a spread, each exchange is alluded to as a leg. The advantage of a spread is that your chance and potential misfortunes are minimized. The drawback is that your benefits are too constrained.
- **Bull Call Spread:** This sort of vertical spread is utilized by bullish speculators. The speculator would purchase call alternatives on a stock at a certain strike cost whereas at the same time offering a call on the same stock at the next strike cost. Both alternatives would have the same close date.
- **Bear Put Spread:** This is often also a vertical spread. In this procedure, you'd buy put choices at a certain strike cost and after that offer the same number of puts at a lower strike cost, both on the same basic stock with the same termination date. Typically, a procedure for bearish financial specialists who think the cost of the stock is reaching to decrease. Utilized as an elective to brief offering a stock.
- **Calendar/Time Spread:** A calendar, or time, spread includes obtaining an alternative with one close date and after that offering another with a distinctive close date. The strike cost for each would be the same. In this strategy, you're trusting to require advantage of time rot.
- **Butterfly Spread:** Butterfly spreads are to some degree complicated and best utilized by more experienced financial specialists. In this methodology, a financial specialist combines both a bull and a bear spread technique, utilizing three distinctive strike costs.
- **Straddle (Long):** A straddle is utilized by a speculator who accepts a stock and is planning to move all together in one course or another but isn't beyond any doubt

which heading it is getting to be. In this methodology, you'd buy (or offer) both a call choice and a put choice on a stock with the same strike cost and the same termination date. These offer boundless benefit potential while at the same time restricting hazards.

- **Iron Condor:** The iron condor could be a complex technique that includes at the same time holding a long and brief position in two diverse choke procedures. In this technique, the financial specialist offers an out-of-the-money put alternative, buys another out-of-the cash put choice with a lower strike cost, offers an out-of-the-money call choice, and buys another out-of-the-money call choice at a better strike cost. This methodology offers a restricted chance and a great likelihood of gaining little benefit.
- **Iron Butterfly:** This can be another complex procedure utilized as a constrained hazard, constrained benefit combination. Within the press butterfly methodology, the financial specialist buys an out-of-the-money put, offers an at-the-money put, offers an at-the-money call, and buys another higher strike out-of-the-money call.
- **Naked Calls:** A naked call may be an unsafe speculation procedure in which a financial specialist composes call alternatives on a fundamental security without possession of that security. It is unsafe since in case the buyer of the call choice works out the alternative, at that point the dealer must purchase the stock at the current showcase cost in arrange to fulfill the buyer's arrangement. The risk, in this case, is boundless since there's no way to control how tall the showcase cost of the stock will go.
- **Collars (Protective):** In this procedure, the speculator buys an out-of-the cash put choice whereas at the same time composing an out-of-the-money call alternative on the same stock with the same termination date. Usually utilized by speculators to bolt in a benefit without offering the stock.
- **Strangle (Long):** Within the strangle methodology, the speculator buys both a put choice and a call choice, both ordinarily out-of-the-money, on the same stock with the same close date, but with different strike costs. This is often utilized when the speculator is uncertain about which way the stock is headed.

VIII. CONCLUSION AND SUGGESTIONS

1. **Trade in Agreement along with your Consolation level and Mental Personality:** In the event that you're not comfortable offering naked alternatives, at that point do not; indeed, in spite of the fact that such techniques are pleasantly productive for a few dealers, they ought to not be utilized in case they cause you restless evenings.

2. **Always use a Model:** The greatest botch that alternative dealers make is coming up short to check the reasonable esteem of the choice sometime recently it is bought or sold. It could seem like an annoyance — particularly in the event that you or your broker do not have real-time evaluation capability — but this is often the premise of all vital ventures. You wish to know whether you're getting a deal or paying as well for the choice.

3. **Don't buy Out-of-the-Money Options unless they're Really Cheap:** Usually truly an end product of the over-run show, but it's vital sufficient to state independently. Clearly, you can't tell if the choice is "cheap" unless you employ a show. In case the out-of-the-money choice is costly, at that point return to the past run the show and purchase the in-the-money choice.

4. **Know what Strategies are Equivalent and use the Optimum one at all Times:** Identical techniques have the same benefit potential. For illustration, owning a call is proportionate to owning both a put and the fundamental instrument.

5. **Trade all Markets:** There are key alternative openings in all markets — values, lists, and prospects. To disregard one or two of these fairs doesn't make sense. The same standards of alternative assessment required to build a factually appealing methodology apply similarly well to all three markets. Moreover, there are frequently inter-market supports that are amazingly reliable, but in arrange to require advantage of them, one should exchange all of the markets.

REFERENCES

[1] Das, S. And R. Uppal, (2001). Systemic Risk and International Portfolio Choice, Working paper, Santa Clara University.
[2] John Y. Campbell and Martin Feldstein, chapter in NBER book Risk Aspects of Investment-Based Social Security Reform (2001), editors (p. 291 - 320).
[3] Berger, Allen, W. Scott Frame, and Nathan Miller, (2001). "Credit Scoring and the Price and Availability of Small Business Credit." Paper presented at Credit Scoring and Credit Control VII (Edinburgh, Scotland).
[4] Faulhaber, Gerald and William Baumol. (1988). “Economists as Innovators: Practical Products of Theoretical Research,” Journal of Economic Literature, 26 (June), 577-600.
[5] Jalal Akhavein, W. Scott Frame, and Lawrence J. White Working Paper 2001-9 The Diffusion of Financial Innovations: An Examination of the Adoption of Small Business Credit Scoring by Large Banking Organizations.
[6] K. Ezzat Molouk; G. Mohamed Fathy, The Economic Importance of Venture Capital as New Funding Alternative with Reference to the Egyptian Experience.
[7] Lerner, Josh. (2002). "Where Does State Street Lead? A First Look at Finance Patents, 19712000," Journal of Finance, 57, 901-930.
[8] https://www.sebi.gov.in
[9] https://edisciplinas.usp.br/pluginfile.php/2337440/mod_resource/content/1/Option_Trading_Strategies.pdf

