

A Complete Beginner's Guide  
**Options Relaxing Trading**

DAVID CARLI

Option trading involves substantial risk and is not suitable for all investors. Trading options is difficult and requires extensive study. I cannot and will not guarantee that you will not lose money or that you will make money from the information found on this book. Past results do not guarantee future results. You can lose money trading options and the loss can be substantial including more than you invest. Losing trades can occur and will occur in the future. Don't trade with money you can't afford to lose. Only risk capital should be invested since it is possible to lose all of your principal.

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# ABOUT THE AUTHOR

## INTRODUCTION



My journey in the investment and trading world started shortly after I graduated from the University of Pisa, Italy. I then travelled to New York city, USA., where I attended exclusive courses of Steve Nison who introduced the western world to the art of Japanese candlestick as a tool for analysing market trends and investment decisions.

I have been working as a full-time trader and an independent financial analyst since 2007 hence I established Trading with David as a niche investment service with a primary focus on FX markets and commodities. During that time, I collaborated with reputable financial trading services and investment magazines. And from 2012 -2013 I worked as a hedge fund manager for an Italian Bank boutique. In 2018, I began providing market analysis and trading ideas for a major European commodity investment company, and up to this date.

I published several trading and investment books to pass on my knowledge and expertise on how to analyse the financial market correctly and have the odds on your side to become a profitable trader. My approach is based on low-risk investment strategies across all markets to achieve a balanced asset allocation through diversification and risk management.

I am currently working on several other books for those who wish to learn more about certain aspects of trading such as Forex, commodities spread trading, options, and ETFs to name a few. Through my books, I coach independent investors on my personal trading strategies and how to apply them in different market conditions.

You can find out more about my educational library at <https://tradingwithdavid.com> to develop an extraordinary edge to your trading and investments plan with a deep understanding of the macro environment, along with advanced technical analysis and risk management they are designed to build or improve your trading skillset

# PREFACE

## INTRODUCTION



Have you ever dreamt of trading without stress? With options, this dream can become a reality. Thanks to their flexible nature, options allow for a relaxed approach to trading, making it possible to manage your finances with ease.

Options are extremely versatile financial instruments. Originally created to protect investments, they have evolved to become one of the best ways to manage both your savings and your time. They are ideal for those who wish to integrate trading with other primary activities. Options are particularly suited to traders who do not have much time to dedicate to the markets and want to sleep soundly at night, free from market pressures.

These fantastic instruments offer benefits to those who wish to work with stocks and futures without needing a large trading account, as well as to those who prefer a more speculative approach. Due to their flexibility, options can be tailored to the needs of each trader, just like a custom-made suit.

Options are unique: they allow you to profit from the markets without necessarily predicting the price direction. You can benefit from the mere passage of time or market volatility, making them an excellent choice for a variety of strategies.

However, it is crucial to understand that options are complex instruments and require a professional approach, more so than any other financial instrument. Deep knowledge and continuous learning are essential for successful trading.

Options are also perfect for diversifying trading strategies. If an asset is trending, you can buy or sell it. If it is in a sideways phase, you can use options to exploit the passage of time.

“Options Relaxing Trading” is a guide for beginners who want to start exploring the world of options in a simple and clear manner. This book will provide you with a solid foundation upon which to build your options trading activity.

Allow yourself to be captivated by the intriguing world of options. Discover how to trade in a relaxed way while minimising risks.

For any questions, do not hesitate to contact me at [info@tradingwithdavid.com](mailto:info@tradingwithdavid.com).



It will be my pleasure to answer all your queries. Also, visit my website at <https://tradingwithdavid.com>, where you will find free articles, analyses, mini courses and books.

## PART ONE: FEATURES OF OPTIONS

# THE HISTORY OF OPTIONS

## CHAPTER 1



Options and futures are close cousins, but options (as their name implies) come with flexibility. The origin of both products is closely tied to a host of commodities, ranging from olives to tulips, onions to grains.

The very first account of options was mentioned in Aristotle's book named "Politics", published in 332 B.C., where he tells the tale of Thales of Miletus, astronomer, philosopher, and mathematician.

Thales was one of the seven sages of ancient Greece. By observing the stars and weather patterns, Thales predicted a huge olive harvest in the year that follows. Understanding that olive presses would be in high demand following such a huge harvest, he could have obtained an enormous profit if he had owned all of the olive presses in the region. However, he did not have that kind of money.

Instead, Thales thought of a brilliant idea. He used a small amount of money as the deposit to secure the use of all of the olive presses in the region: a Call option with the olive presses as the underlying asset. As Thales expected, the harvest was plentiful, and he sold the rights to use all of these olive presses to people who needed them, turning a big fortune.

In the Middle Ages, some Mediterranean area traders also developed credit contracts that were similar to options, where the seller of the contract agreed to purchase cargo if the ship carrying it did not come in on time for the intended purchaser's needs.

Options then turned up again during the tulip mania of 1636. Tulips imported into Europe from Turkey, and Holland quickly became a symbol of affluence and beauty in the seventeenth century. Due to the overwhelming demand for tulips, demand for tulip bulbs by growers and dealers also increased exponentially, pushing up the price at the producer level.

As the price of tulip bulbs increased almost on a daily basis, Dutch dealers started tulip bulb options trading so that producers could own the rights to own tulip bulbs in advanced and secure a definite buying price.

Even though options trading gained a bad name, it does not stop financiers and investors from acknowledging its speculative power through its inherent leverage. Options

were given an organised market towards the end of the seventeenth century in London.

With the lessons learnt from the tulip mania still fresh in mind, trading volume was low as investors still feared the “speculative nature” of options. In fact, there was growing opposition to options trading in London, which ultimately led to options trading being declared illegal in 1733.

Since that year, options trading in London was illegal for more than 100 years until it was declared legal again in 1860. A ban of more than a century due to ignorance and fear. The fates of options and futures ultimately diverged, with futures contracts becoming standardised and regulated in the United States long before options, largely due to the fact that America’s agricultural industry demanded something more uniform and regimented.

In 1848, born the Chicago Board of Trade. Located in a rapidly growing city smack in the middle of America’s heartland, the CBOT offered a solution to seasonal price risk in the agricultural industry. The CBOT allowed for the trading of “to-arrive” contracts (or “forward” contracts), which allowed farmers to fix a price and delivery date ahead of time, so they could store their product elsewhere until the expected delivery date, centralising what had been a dispersing process.

By 1865, the Board of Trade standardised its contracts transforming the forward contracts marketplace into a standardised futures contract marketplace with uniformity in expiration dates, contract quality and pricing; a product very similar to the futures that you trade today.

In the century that followed, futures grew more uniform and, in the U.S., more regulated. The Grain Futures Act of 1922 created a predecessor to the Commodity Futures Trading Commission, and the first mandatory clearing system to settle trades was established in 1925.

Options, on the other hand, remained unstandardised and largely unregulated in the U.S. and internationally. Options had strong critics due to some of the notable cases where the inability to require counterparties to fulfil their obligations led to big losses on what should have been a profitable position, and in some parts of Europe, they were actually outlawed.

Without a standardised market, each option contract and each term of the contract (strike price, expiration date and cost) had to be individually negotiated. It was not until the late 19th century that New York-based financier Russell Sage put forth a method of pricing options in relation to the price of the underlying security and interest rates, creating a form of standardised pricing.

However, in the early 1900s, fraudulent brokerage houses that peddled speculative or fake securities, popped up across the country, leaving a number of jilted investors in their wake and leaving the options industry unpopular with investors.

The stock market crash of 1929 led to a wide-ranging overhaul of financial regulation. The Securities Act of 1933 created a broad set of regulations governing securities trading while the Securities Exchange Act of 1934 created regulations governing the operation of securities exchanges and created the U.S. Securities and Exchange Commission to enforce the new rules.

The Chicago Board of Trade applied for registration as a national securities exchange shortly after and received a license as such. But that license went unused for more than three decades as the market continued to trade non-standardized privately negotiated options contracts. The Put and Call Brokers and Dealers Association was formed around this same time to organise the over-the-counter markets better.

It was not until the 1960s, in the midst of a grain market crisis, the CBOT finally put its exchange license to use as it looked to expand its business to include options. The resulting spun-off entity, the Chicago Board Options Exchange, established open-outcry trading pits similar to those at its affiliated futures exchange and centralised options clearance and settlement.

In 1973, not only did the CBOE open its doors, but two economists, Fischer Black and Myron Scholes, published an article putting forth a model for calculating the theoretical estimate of an options price over time.

The Black-Scholes model is a mathematical formula used to determine the price of a Call or Put option. It takes into account various factors, including the current price of the underlying asset, the strike price, the time to expiration, the volatility of the underlying asset, and the risk-free interest rate.

With an exchange created and a solid model for pricing, new options contracts were issued subject to standardised terms, such as uniform expiration dates and established “strike” prices, or the price at which the option could be exercised. The market flourished and was subject to regulatory oversight on par with U.S. stock markets, with trades guaranteed by a central clearinghouse, The Options Clearing Corporation.

In 1973, options trading at the CBOE was restricted to Call options, which grant the right to buy shares, in just 16 stocks.

Over time, the listed options market has expanded to additional exchanges and products, including Put options, which grant the right to sell shares and cash-settled index options. They allow investors to manage or hedge portfolio exposure and smooth portfolio returns against indexes like the broad-based S&P 500 and Russell 2000, or narrower indexes like the NASDAQ-100. More recently, the options products have expanded to include weekly options, which expire every Friday, instead of once a month.

In 1982, the listed options market hit a milestone when more than 500,000

contracts were traded in a single day. Options popularity continued to increase, and today it is remarkably easy for any investor to place an options trade.

There is an average of more than 11 million options contracts traded every day on more than 3,000 securities, and the market just continues to grow. And thanks to the vast array of internet resources (like the book you are reading), the general public has a better understanding of options than ever before.

# INTRODUCTION TO OPTIONS

## CHAPTER 2



Listed for the first time in 1973 in the United States, **Options** are certainly the ideal for those who do not have much time to devote to the markets or for those looking for a way to make the most of their savings, alongside the trading with options to their work.

An option is a contract between two parties, the buyer and the seller, that gives the buyer the right, but not the obligation, to buy (option "*Call*") or sell (option "*Put*") an underlying asset, by a certain date (*expiration date*), at a pre-set price (*strike price*), by paying a sum of money (*premium*).

From this, **the first important feature** that emerges is that by buying an option, your maximum risk is limited to the premium you pay, regardless of how the underlying asset moves. The underlying asset may be a stock, index, commodity, etc.

Options are financial derivative instruments, which means that their price derives from the market price of another asset named underlying. To take an example from everyday life, bread is a derivative of wheat, the wine of the grape, gasoline of crude oil, etc. A change in the price of the underlying asset (wheat, grape, crude oil) will affect the price of bread, wine, and gasoline.

The relationship between the price of the underlying asset and that of the options is, for those who begin to study these instruments, one of the major obstacles to their full understanding. It is useless to deny that in the options, the complexity of the issues involved is undoubtedly greater than in many other financial instruments.

Options allow for much higher flexibility and adaptability than any other investment strategy. However, it is surprising that in many countries, they have restricted use.

Options can be **American or European style**; in the first case, the exercise of the option can be done at any time before the expiration date on the part of the buyer, while in the European options, the purchaser of the option can exercise it only at the expiration date. You will see this distinction better in Chapter 18.

There are two types of options:

**1. CALL**, the buyer has the right, but not the obligation, to buy an underlying asset at a given price (strike price), by a date to be fixed (expiration date), by paying a sum of money (premium).

Buying a Call option means having a bullish view of the underlying, which means that you believe you can make a profit by reason of the price increase of the underlying asset, as long as it takes place by the expiration date of the option.

**2. PUT**, the buyer has the right, but not the obligation, to sell an underlying asset at a given price (strike price) by a certain date (expiration date), by paying a sum of money (premium).

Buying a Put option, the purchaser has a bearish view of the underlying asset and bears the only risk of losing the invested premium, benefiting from a drop in the price of the underlying asset, provided it takes place by the expiration date of the option.

So, by buying a Call option or a Put option, you are **directional on the market**.

Another element of options is the **premium**, that is, the amount of capital the market requires from you to buy an option. You can see an example of an option with Microsoft in Figure 1 below.

MSFT Dec17'21 310 CALL	◆ 5.95	6.05 ◆
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*Figure 1 - Call option on Microsoft (Mexem.com)*

**MSFT** is the ticker of the underlying asset (Microsoft), **Dec17'21** is the option expiration date (December 17, 2021), **310** is the strike price, **CALL** is the option type, and **5.95** and **6.05** are bid and ask (the premium you pay for buy it).

**Very important:** to facilitate the relationship with the value of the share, the option price refers to a unit quantity of the underlying asset. What is not actually apparent from Figure 1 is the size of the contract, that is, the numerical ratio between an option and the underlying asset. This ratio is standardised and only varies according to the type of underlying asset.

In this case, since these are American shares, each option holds 100 shares of the underlying asset. That is, 1 Microsoft option represents 100 stocks of the company. By purchasing the option at \$6.05, you pay a premium of \$605 ( $\$6.05 \times 100$ ) that give you the right (but not the obligation) on the expiration date to buy 100 Microsoft shares at \$310 each.

By buying a Call option, you earn if the price of the underlying asset will rise above the break-even point. By purchasing a Put option, you earn if the price of the underlying asset will fall below the break-even point. Otherwise, you lose, all or in part, the premium paid.

You obtain the break-even point when you buy a Call option by adding the



premium paid to the strike price. Below in Figure 2 is an example. I decide to buy a Netflix CALL option with a strike \$700, with an expiration date of 17 December 2021. The premium I pay is \$14.50. You find the break-even point calculation with all possible situations, depending on the price.

NFLX Dec17'21 700 CALL \$ 14.50		
Break-Even Point (BEP) = \$ 700 + \$ 14.50 = \$ 714.50		
Netflix price	Situation	Buy Call
\$ 690	Price < Strike	I lose the Premium = \$ 1,450
\$ 710	Strike < Price < BEP	I lose (BEP - Price) * 100 = \$ 450
\$ 725	BEP < Price	I earn (Price - BEP) * 100 = \$ 1,050

Figure 2 - Netflix buy Call option situations

When you buy a Put option, instead, the break-even point is obtained by subtracting the premium paid from the strike price. In Figure 3 below, the same example with Netflix but this time I decide to buy a Put option with strike \$650, expiration date is always 17 December 2021. The premium I pay is \$15.30.

NFLX Dec17'21 650 PUT \$ 15.30		
Break-Even Point (BEP) = \$ 650 - \$ 15.30 = \$ 634.70		
Netflix price	Situation	Buy Put
\$ 670	Price > Strike	I lose the Premium = \$ 1,530
\$ 645	Strike > Price > BEP	I lose (Price - BEP) * 100 = \$ 1,030
\$ 610	BEP > Price	I earn (BEP - Price) * 100 = \$ 2,470

Figure 3 - Netflix buy Put option situations

When you buy an option, you have a limited risk, which is defined by the premium paid. In the examples in Figures 2 and 3, the \$1,450 paid to buy the Call option and the \$1,530 paid to buy the Put option represent the highest risk, unlike a stock that can be subject to strong price movements and cause huge losses.

The profits are, instead, potentially unlimited. Well, it is not completely correct; the price, in theory, can rise indefinitely but an underlying asset (stock in this case) cannot have a negative price. Margins required by the broker are however much lower for an option than for buying the underlying asset directly.

Another important aspect is that, while with the shares and some ETF's you get dividends, given that the options are instruments created directly by the markets (and not by the companies), they do not give dividends (dividends which, as you will see shortly, affect, in

any case, the prices of options).

Now a question: why are the options purchased so cheap? Why is the premium you pay so low compared to buying shares? Quite simply, because the odds are not on your side. In order to make money when you buy options, you not only have to predict the direction of the market but also how quickly it will reach at least the break-even point. You will see more about this later.

Let's see now, the elements that affect the value of the option premium.

**1. Moneyness** (high impact). That is, the relationship between the strike price of the option chosen and the price of the underlying asset. There are many options for an underlying asset, just as there are many strike prices to choose from.

Selecting an option instead of another, and having the strike price more or less close to the price of the underlying asset, are characteristics that can completely change the overall profile of the investment.

In Figure 4 below, you can see on the right the strike price and on the left the corresponding premium of the Call options on Netflix with an expiration date, 17 December 2021.

♦ 33.15	660
♦ 29.80	665
♦ 26.95	670
♦ 25.20	675
♦ 22.65	680
♦ 20.00	685
♦ 17.60	690

*Figure 4 - Premium and Strike price of Call option on Netflix (Mexem.com)*

You can see that as the strike price changes, so does the premium. This is because the probability of the underlying asset (Netflix) reaching a particular strike price also changes. It will certainly be more likely that Netflix (which currently has a price of \$674) will rise to \$690 than to \$720 or \$750 in the next fifty days.

**As a rule**, the further away an option has a strike price from the price of the underlying asset, the lower the premium will be because the lower the probability that it will have value at the expiration date.

This ratio is quantified by the definitions *in the money*(**ITM**), *at the money*(**ATM**) and *out of the money*(**OTM**). It is very important because it makes you understand what kind of value is reflected in the price depending on the type of option.

**CALL options:**

- a. **ITM (In the Money)**: the price of the underlying asset is less than the strike price.
- b. **ATM (At the Money)**: the price of the underlying asset is the same as the strike price.
- c. **OTM (Out the Money)**: the price of the underlying asset is less than the strike price.

**PUT options:**

- a. **ITM (In the Money)**: the price of the underlying asset is less than the strike price.
- b. **ATM (At the Money)**: the price of the underlying asset is the same as the strike price.
- c. **OTM (Out the Money)**: the price of the underlying asset is more than the strike price.

You can see a practical and visual summary of Disney in Figure 5.

Disney price \$ 160		
Strike	CALL	PUT
\$ 150	ITM	OTM
\$ 155	ITM	OTM
\$ 160	ATM	ATM
\$ 165	OTM	ITM
\$ 170	OTM	ITM

*Figure 5 - Disney types of strike price of an option*

Depending on the Moneyness, there can be a maximum of two components that, together, form the total price of the options:

- a) **Intrinsic Value** exists only in the ITM options and corresponds to the difference between the price of the underlying asset and the strike price (Call options) and between the strike price and the price of the underlying asset (Put options). It can never have a negative value. An example: Disney's price is \$160, the intrinsic value of the Call option strike price of \$150 is equal to  $\$160 - \$150 = \$10$ ; the one of the Put option strike price of \$180 is:  $\$180 - \$160 = \$20$ . The intrinsic value changes only in relation to the change in the price of the underlying asset and not in the passage of time. In practice, the intrinsic value of an option represents its value if it were exercised at that time.

To summarise:

**Intrinsic Value Call** = Underlying asset price - Strike Call option

**Intrinsic Value Put** = Strike Put option - Underlying asset price

- b) **Extrinsic Value** (or time value) until shortly before the expiration date exists for all three Moneyness and is equal to the difference between the option's price and the possible intrinsic value. You can consider the time value as the additional price that the buyer

pays to the seller in order to buy that particular type of option. The OTM option premium is entirely made up of time value, as these options have no intrinsic value. The extrinsic value is linked to factors that do not depend on the performance of the underlying, e.g., the expiration of the option and volatility.

$$\text{Extrinsic Value} = \text{Premium} - \text{Extrinsic Value}$$

**2. Expiration** (high impact). Having a well-defined expiration date is one of the features that differentiates options from stocks, bringing them closer, but only for this feature, to futures contracts.

NFLX Nov19'21 700 CALL	◆ 7.55
NFLX Dec17'21 700 CALL	◆ 15.35
NFLX Jan21'22 700 CALL	◆ 28.15
NFLX Feb18'22 700 CALL	◆ 35.30
NFLX Mar18'22 700 CALL	◆ 39.78

*Figure 6 - Netflix different expiration dates and premiums (Mexem.com)*

Depending on the expiration date you select, this will affect the premium you have to pay to purchase the option. In Figure 6 above, you can see on the right the premium and on the left the different expiration dates of the Netflix Call option, strike price \$700.

The further away is the expiration date, the greater is the time limit for Netflix to arrive at a specific strike price, and the more the premium increases.

It happens because Netflix is much more likely to rise at least to \$300 for example, in three months than in only one and, for this reason, we will pay a higher premium for buying the Call option.

**As a rule**, the furthest the expiration date of an option, and higher the premium of both Call and Put options.

Depending on the type of expiration date, there are 4 different option categories available on the market:

**Weekly.** They started to be traded on October 28, 2005, with, as an underlying asset, the Standard & Poor 500 (SPX) index, while from June 2010 the weekly options on some ETFs (SPY, QQQ, DIA, IWM) were made available, and then on several stocks.

The main peculiarity of the weekly options is, of course, the duration; in fact, unlike the monthly options, the weekly ones usually are made available at the market opening on Thursdays and expire on the Friday of the following week. Their life cycle is, therefore, only eight days, two of which with the markets closed (Saturday and Sunday). The obligations and requirements are equal to the monthly options.

Given their short life, everything in the weekly options is amplified: the possible profits, as well as the potential losses due to an adverse movement of the underlying asset of the duration even of only a couple of days.

In order to be used in a profitable manner, they, therefore, need great mastery and experience, as well as decidedly greater availability of time than is required by the monthly options.

**Monthly.** It is the most popular and used type of option and expires typically on the third Friday of the month. The broker automatically provides all the expiration dates currently available.

**Quarterly.** They have been introduced on the market since 2006 and have the characteristic of expiring at the end of each quarter (i.e., the last working day of March, June, September, and December).

Compared to monthly options, quarterly ones usually have lower liquidity, which is why they can rarely be used in preference to them or considered an equally valid alternative.

Currently, quarterly options are available only for a few underlying assets.

**LEAPS** (Long-Term Equity Anticipation Security). These are options whose duration is considerably longer than the others: on average nine months, but they can be up to three years.

The LEAPS, introduced on the market in 1990, always expire in January and are mainly used as a valid alternative to the purchase of the underlying asset. Both because they need a decidedly lower capital, and because by having such a long expiration, they limit as much as possible the phenomenon of the time value erosion (time decay that we will see later in the chapter), so characteristic, instead, of the weekly, monthly and quarterly options.

**3. Dividend** (low impact). The dividend is that part of the net company profit which, after being entered into the balance sheet, is distributed to the shareholders as a return on the invested capital.

Although not standing among the most important factors, the dividend, however, has an impact on the determination of an option's price. Obviously, if the stock or the ETF pays no dividend, or if you are working with futures or commodities, the question of a dividend makes no difference.

What usually happens is: the day the stock will trade ex-dividend, the open will be at a lower price by an amount equal to the dividend itself. The market takes into account this mechanism in the premium of the related options with an expiration date exceeding the coupon date.

In particular, the dividend will lower the premium of a Call option and higher the one of a Put option.

**4. Interest rate** (very low impact). Of the five factors that can influence the price of an option, the interest rate is the one with the least impact.

In fact, this variation is usually limited to 0.25% (or 25 basis points) and occurs very rarely. I will spare you the reasoning behind it, as it is tedious and, for the purpose of this book, of little interest.

**5. Volatility** (high impact). The last and most important element that affects the value of an option, is volatility. It can be defined as the measure expressed in percentage points of the speed and extent of changes in the value of a specific asset in a given period of time.

The increase in volatility is mostly reflected in OTM options which in some cases can even double in price with an increase in volatility of only a few percentage points. Each market may have particular and different volatility characteristics, and it may differ significantly depending on the time period analysed.

The options volatility is always referring to the underlying asset and is divided into:

**a. Historical volatility** is an indicator of the extent to which a price may diverge from its average in a given period. Hence, increased price fluctuation results in a higher historical volatility value. It is, therefore, a certain fact, not subject to opinions or expectations, measurable objectively and totally based on what has already happened.

I will spare you all the calculations and show you an example. Apple stock has a value of \$165, and in the last year has had historical volatility of 10%. It means that in the previous 12 months, it has deviated from its average price by \$16.5 (10% of \$165).

A not very intuitive characteristic of historical volatility is that at high percentage values, not always correspond considerable price differences between the beginning and the end of the period of time are taken into consideration.

**b. Implied volatility** represents the market's expectations about a likely movement in an underlying asset. It is, therefore, a question of "forecasting", not as in the case of historical volatility, of objective data.

This is the type of volatility that interests you because it is the one that influences the value (premium) of the options. Possible future movements of the underlying asset correspond to increasing values of implied volatility and therefore, higher prices of the corresponding options.

The value of the implied volatility is closely connected, in addition to the strike price, also to the residual life of the option. It may, therefore, happen that options of the same underlying asset but with different expiries have implied volatilities that are also very different.

It is possible to know the value of the implied volatility only for those underlying assets that have the options; otherwise, it is not possible to calculate this type of volatility.

A high value of implied volatility does not necessarily mean that the underlying asset is undergoing large price changes. What affects the implied volatility are future expectations, not the current behaviour of the underlying asset.

It is, therefore, possible to observe an underlying asset with options characterised by high values of implied volatility, but that moves sideways in terms of price.

High values of implied volatility can, therefore, act as a wake-up Call regarding that particular underlying asset. It means that the market expects future large price movements, and this information is very important when you decide to open a trade on that underlying asset.

An increase in implied volatility is usually associated with strong bearish movements, while a growing market is expected to cause a decrease in this type of volatility. In reality, it is not always so. Indeed, the opposite can also happen; it depends on the underlying asset you are using as well.

The elements that affect volatility are:

**a. Earnings.** American companies are required to issue a series of data on the company's performance every three months. Depending on the data, you can witness significant fluctuations, even by several percentage points in a single day.

In proximity to the earnings, volatility begins to grow because the market knows that when earnings are released, the stock could move heavily up or down. For this reason, it is not advisable to buy options before earnings because you would pay a much higher premium (in addition to the fact that earnings can also be very negative for your position).

**b. Rumours.** Another element that can alter the price of an underlying asset is "rumours." Rumours of acquisitions, capital increases, etc., even though not confirmed, create nervousness in the markets, thus increasing volatility.

**c. Panic Selling.** Following corporate actions or economic and political events, particularly serious and important, it can follow strong sales by all investors, causing panic selling, and resulting in a sharp increase in volatility.

Just think about what happened after September 11 or the Volkswagen stock on 19 September 2015, the day after the news of the scandal of the diesel emission data in the United States (-18.60%). In either case, volatility went through the roof.

Other factors that cause increased volatility are macroeconomic data, central bank meetings and interest rate decisions, tensions between major oil-producing countries, terrorist attacks, and all that can cause nervousness and uncertainty in financial markets.

You have seen that buying an option can be very beneficial because it gives you the opportunity to buy or sell an underlying asset at a better price than the market price. If you are good at finding where an underlying can go, with the options, you will have a chance to earn far more than not working directly on the underlying asset.

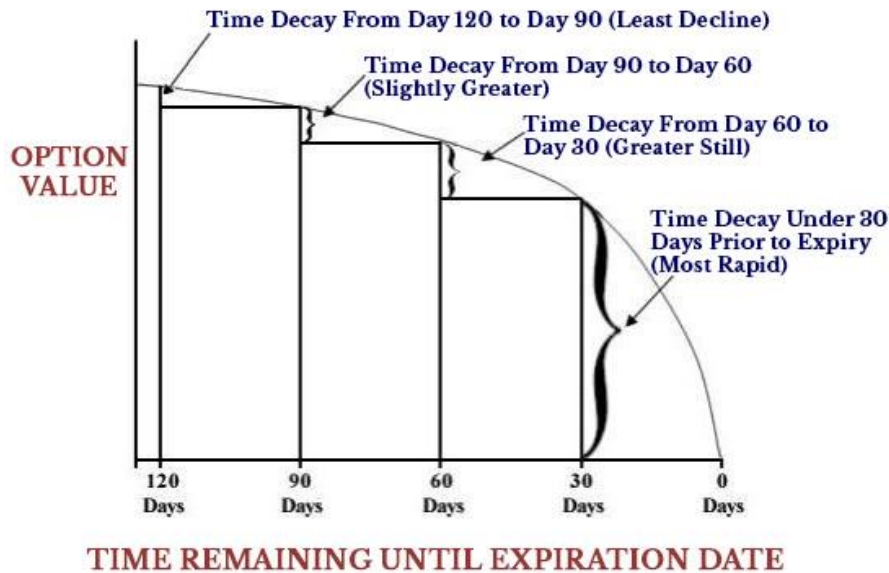


Figure 7 - Time Decay in an option

By buying options, however, you have not only positive aspects but several elements that play against you. The first of these elements is time. When you buy options, time is not your friend because every passing day your option loses a bit of value. You can see the time decay of an option in Figure 7 above.

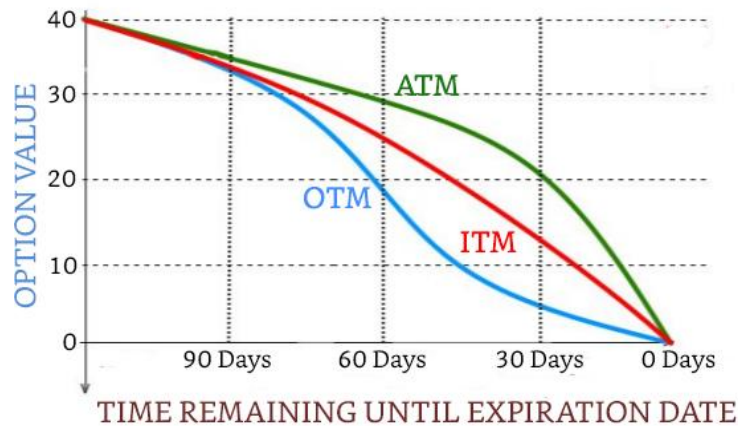
Time decay, therefore, is the phenomenon for which, with the passage of time, the option loses value. This is because the closer you get to the expiration date and less time there is for the option to reach at least the break-even point.

The residual maturity of an option has a significant impact on its price, in particular for the at-the-money (ATM) and out-the-money (OTM) options.

**Important.** The options that lose the most in value are the ATM options, but those that lose the most in percentage are the OTM options. So, the OTM options are the ones that lose value faster with the passage of time, as you can see in the chart in Figure 8.

To indicate the time value is used a Greek called Theta. When you see this symbol  $\theta$  (Theta) on your trading platform, its value tells you how much an option depreciates with the passage of time. In Appendix B, you can find an exhaustive explanation of the main Greeks.





*Figure 8 - Moneyness Time Decay*

The probability is a second element that plays against you in buying options. If you buy a Call option, you will only earn if the underlying rises and even with strength. If it goes down, moves sideways, or rises but not enough to reach at least the break-even point, you will lose the premium paid (or part of it).

The same if you buy a Put option, you will only gain if the price of the underlying asset will fall below the break-even point. Our odds of success are, therefore, 1:4, which is 25%.

**Clarification.** You are not forced to hold a purchased option until the expiration date. You can resell it when you find it more appropriate, as you can see in the example below.

Facebook has a price of \$316, and I decide to buy a Call option, with a strike price of \$320, and an expiration date of December 17, 2021 (about two months) because I expect the stock price to go up. The premium is \$12.90, so I pay the option purchase at \$1,290. After two weeks, Facebook has risen to \$320, and for the same option I bought, the premium is now \$18.50.

I can choose to keep the option in my portfolio for a little longer because I expect Facebook to increase in value again. Or I can decide to sell it and collect a premium of \$1,750, for a net profit of \$560 (the \$1,850 I got by selling the option minus the \$1,290 I paid to buy it).

You have therefore seen that if you buy an option, in the face of a small premium paid, you can make a significant profit; nevertheless, time and odds are not on your side.

It does not mean that buying options is wrong, absolutely not. The purchase of options, however, is difficult to earn because this requires a lot of precision in identifying where an underlying asset will move and by a precise date. And, above all, it does not allow you to earn steadily over time: month after month, year after year.

As an options trader, you can be either the buyer or the seller, exactly like with any other financial instrument. In the next chapter, you will discover the true essence of options, what makes them the financial instrument with the greatest likelihood of success.

# SELLING OPTIONS

## CHAPTER 3



You have seen that buying options can be very beneficial because it allows you to buy or sell an underlying asset at an advantageous price, with very low risk and limited to the premium you paid to buy the option. You also saw that there are some negative sides, the time it is against you, and the odds of success are low. But there is another essential element to be taken into account: the quality of life.

An important and underestimated thing in trading is that it does not matter how much you earn, but how you do it. Much better to earn a little less but sleep soundly rather than gain more but with high stress.

Buying options means you have to stand in front of a monitor to follow the position, with much less time to dedicate to the family, your own interests, and so on. This does not happen when you sell an option and this is a top priority for me. When you sell an option, everything you have seen in the previous chapter is reversed. You no longer have to predict how a market (underlying asset) will move by a certain date (expiration date), but where you think it will not.

By reformulating the definition (this time from the point of view of the seller), an option is a contract between two parties, the buyer and the seller, that gives the seller the obligation, to sell (option “*Call*”) or buy (option “*Put*”) an underlying asset, by a date to be fixed (*expiration date*), at a pre-set price (*strike price*), by collecting a sum of money (*premium*).

From this, **the first important feature** that emerges is that, unlike when you buy options, when you sell options, your maximum risk is unlimited.

Now, therefore, you no longer have a right, but an obligation that is to sell (Call option) or buy (Put option) the underlying asset at the strike price, if the option is in the money at expiration and you will be assigned. You will see more about the assignment in Chapter 18.

Let's see again the two types of options, this time not on the side of the buyer, but from the seller's perspective.

**1. CALL.** The selling of a Call option gives you the obligation to sell the underlying at a fixed price (strike price), by a certain date (expiration date), by collecting a sum of money

(premium). Selling a Call option presupposes a sideways or bearish view of the underlying asset, so you are not bullish.

**2. PUT.** The selling of a Put option gives you the obligation to buy the underlying at a fixed price (strike price), by a certain date (expiration date), and by collecting a sum of money (premium). Selling a Put option presupposes a sideways or bullish view of the underlying asset, so you are not bearish.

Thus, with the sale of options, the seller, unlike the buyer, no longer has a right but is in the position of having an obligation to the counterparty.

Now, the premium no longer represents your maximum risk but your maximum (potential) gain. The maximum profit (premium) can only be obtained in full at the expiration of the option if it will not be profitable for the buyer to exercise the option (so that the premium will remain entirely in the seller's pocket). In this case, the option is said to expire worthless.

By selling a Call option, you earn if the price of the underlying asset will close below the break-even point. You obtain the break-even point by adding the premium collected to the strike price. Figure 9 is an example. I decide to sell a Facebook CALL option with a strike of \$350, and an expiration date of 17 December 2021. The premium I collect is \$4.55. Here is the break-even point calculation with all possible situations, depending on the price.

FB Dec17'21 350 CALL \$ 4.55		
Break-Even Point (BEP) = \$ 350 + \$ 4.55 = \$ 354.55		
Facebook price	Situation	Sell Call
\$ 340	Price < Strike	I earn the Premium = \$ 455
\$ 352	Strike < Price < BEP	I earn (BEP - Price) * 100 = \$ 255
\$ 360	BEP < Price	I lose (Price - BEP) * 100 = \$ 545

Figure 9 - Facebook sell Call option situations

In Figure 10, you can see the same example with Facebook but this time I decide to sell a Put option with strike \$290, expiration date is always 17 December 2021. The premium I collect is \$5.10.

FB Dec17'21 290 PUT \$ 5.10		
Break-Even Point (BEP) = \$ 290 - \$ 5.10 = \$ 284.90		
Facebook price	Situation	Sell Put
\$ 310	Price > Strike	I earn the Premium = \$ 510
\$ 287	Strike > Price > BEP	I earn (Price - BEP) * 100 = \$ 210
\$ 275	BEP > Price	I lose (BEP - Price) * 100 = \$ 890

Figure 10 - Facebook sell Put option situations

The elements that affect the premium are the same as you saw in the previous chapter (moneyness, expiration, volatility, etc.), but from a different point of view. While with the buying of options you have to try to obtain a premium as low as possible, by having to pay, with the selling you have to try to get a premium that is as high as possible, because, this time, you collect it.

In a low volatility period, unlike when you buy options, it is less convenient to sell them because also the premiums are low. But it should also be said that low volatility indicates markets little nervous and therefore with fewer sudden movements.

An important indicator of volatility and “measure” of market nervousness is the VIX (also called the “Fear Index”). Vix is based on the prices of options on the S&P 500 Index and is calculated by aggregating weighted prices of the index’s Call and Put options over a wide range of strike prices. It is a good indicator of the expectation of market volatility (implied volatility).

Below in Figure 11, you can see the VIX chart (in blue) compared to the S&P 500 index (in black). You can easily see how the two indexes are inversely correlated. If the S&P 500 index increases, the VIX decreases and vice versa, if the index falls, the VIX rises.



*Figure 11 - VIX and S&P500 chart (TradingView.com)*

You will see in Chapter 17 how to use the VIX in your trades to cover you from any volatility swings.

The selling of options also reversed the negative aspects you saw with the purchase. Now, time and probability are on your side. Time in the selling of options is your precious ally. Now, in fact, time decay is a big friend. With each passing day, the option you sold will lose a bit of its value, especially, as you have seen in the previous chapter, over the past 30 days.

Now, you will no longer have the frenzy that the underlying asset moves forcefully and rapidly in your direction, as when you buy an option. A simple sideways movement of the underlying asset (with a consequent reduction in volatility) is enough to see the written option lose value. The probability of obtaining a profit by selling the options is very high. As you have seen, when you buy an option, you are directional with the underlying asset; basically, you will have a 25% chance of bringing home a profit.

When you sell an option, you are, instead, non-directional with the underlying asset. When you sell, for example, a Call option, you will get a profit if the underlying asset falls, moves sideways, or rises but not enough to reach the strike price sold. Your odds of success, then, rise up to 75%.

In selling the options, it is all a lot simpler, starting with the fact that you already know your maximum gain (the premium). You do not have to stress yourself about how to handle the operation, frustrated between the lines of "*I should close*" and "*it is better to keep the position open a little longer*" (here we come back to the concept of a better quality of life).

For the same reason, however, the elements that, with the purchase of options are on your side, are now against you. While when you buy an option, your risk is limited to the premium paid, and for that, the broker asks you for a low margin, now, your risk is, without due precautions, potentially unlimited and the margin the broker asks is much higher. This is because the margin required by the broker reflects the risk of the trade; the riskier the trade, the higher the margin required.

I conclude with an example. After your analysis, you are sure that in the coming weeks, Goldman Sachs will not rise above \$450 (current price \$425). You, therefore, decide to sell the Call option with an expiration date, of 17 December 2021, a strike price of \$450, and a premium of \$5.50 (that is, \$550).

To sell the option, the broker asks you for a margin of \$14,000. So, to get a profit of \$500, you use a capital (margin) of \$14,000, with the risk of losing much more.

Why, then, should the seller take such a big risk for a limited profit? If you are asking yourself this question, you have forgotten one important thing: the odds of success, which in the selling of options are 75% (and that with simple but profitable strategies, can rise to 85/90%).

And for the remaining 10/15%? In Chapter 6, you will see how to limit the loss. For the moment, you finish seeing the characteristics of the options with the next two chapters.

Hello, if what you have read has caught your interest, you can buy this book at the price of \$ 25.00 (Paperback black and white) and \$ 63.00 (Paperback in colour). Click on the link to proceed with the purchase [Option Relaxing Trading – From Theory to Practice, a Beginner's Guide](#).

Thank you!