OptionsPlay®

MASTER COURSES PRESENTS

OPTIMAL EXPIRATION DATES AND STRIKE PRICES

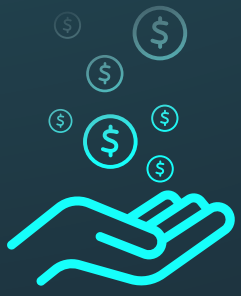
Picking the optimal expiration dates and strike prices for your strategy can make a big difference in your trading performance and maximize your returns!

TIME DECAY (THETA)

The value of an option decreases as it approaches expiration. Shorter dated options decay at a faster rate than longer dated options. Time decay usually works in favor of the option seller and against the option buyer.

BEST PRACTICES WHEN BUYING OPTIONS

Best to use longer dated options (1 month+) that are Slightly 'In The Money' (50-60 Delta). This minimizes the time decay while maximizing the asymmetrical risk profile of an option.



BEST PRACTICES WHEN SELLING OPTIONS

Best to use shorter dated options that are 'Out Of The Money'. These options will have a higher rate of time decay and a higher probability of expiring worthless and minimizing losses.

PRO TIP

When selling options, selling a 30 day options twice will generate more premium than a 60 day option over the same period. Time decay is not linear and accelerates towards expiration!

TMX THE FUTURE IS YOURS TO SEE.

A Counterintuitive Approach to Expiration Dates & Strike Prices

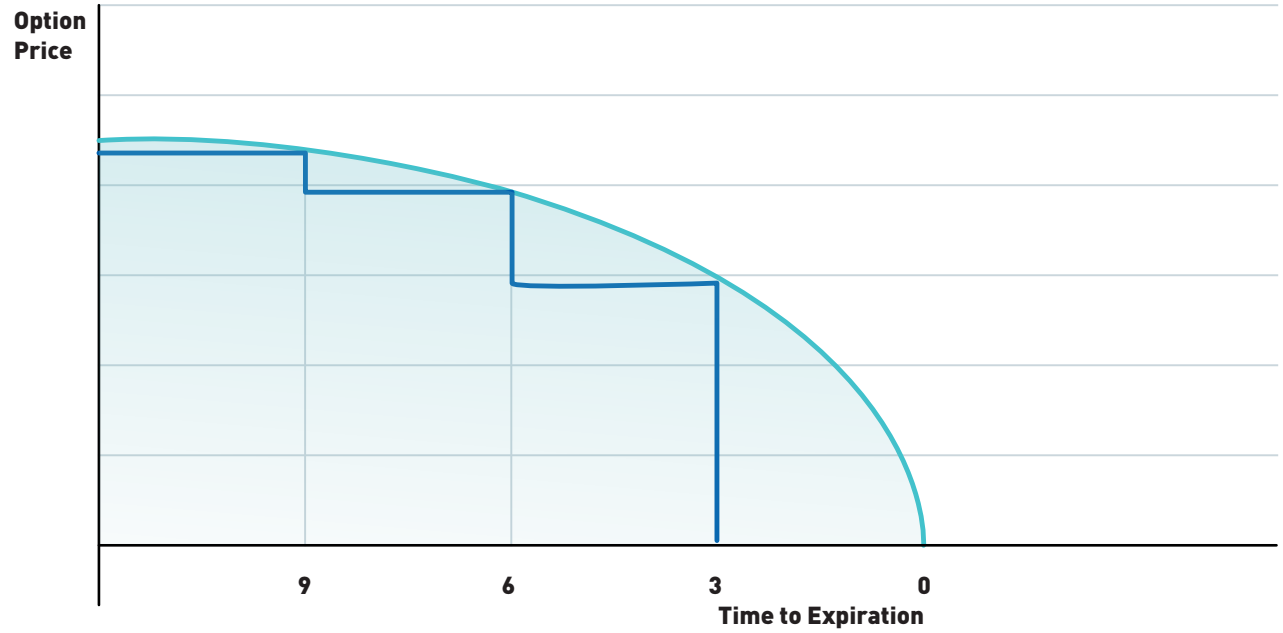
The process to select expiration dates and strike prices for an options strategy is fairly simple, but sometimes counterintuitive. Selecting the optimal expiration dates and strike prices depends on a few factors, however there is an overarching method to selecting them for any strategy. In this post we will analyze expiration dates and strike prices by isolating the important factors in selecting each, aside from the price. Many investors seek to buy the cheapest options and sell the most expensive, however, we will show why this is not the optimal strategy. To learn more about selecting optimal expiration dates and strike prices, please view our **latest webinar** on this topic.

Expiration Dates

The chart below shows an option's price and how it decays as it approaches expiration (not to scale). This decrease in value of an option is known as Theta or time-decay. With everything else held constant, the rate at which time-decay erodes the value of an option value increases as an option gets closer to expiration (time decay is not linear). A 3-month option will experience less time decay per day than a 3-week option. This is an important concept to understand and plays a big role in deciding which expiration dates are best suited for your strategy

TABLE 1

Options Price Decay with Time



Source: OptionsPlay

Buying an Option

When buying an option, many investors tend to buy shorter dated options because they are cheaper in price. Intuitively this makes sense to buy an option that's cheap, however that's where most investors miss the more important factor, time decay. The best practice when selecting expiration dates for buying an option is to choose longer dated options, the more expensive option. This is because longer dated options decay at a slower rate (lower Theta) compared to a shorter dated option that has a higher Theta. Any investor with a long options position will find time decay to be an important factor in selecting expiration dates. An investor can buy a longer dated option and hold the position for the same amount of time as a shorter dated option and suffer a smaller amount of time decay.

Example: If an investor is bullish on BMO ($70.52) as of June 2nd, 2020 and wants to buy a Call Option. In this example, comparing the July vs. August $70 Call option, the July option would erode at almost twice the speed of the August option.

Buy July $70 Call Option @ $360 ($3.60 option premium x 100 shares)

Theta = 0.0341 or $3.41 per day of time decay. Losing **0.94%** of the options value per day

Buy Aug $70 Call Options @ $440 ($4.40 option premium x 100 shares)

Theta = 0.029 or $2.29 per day of time decay. Losing **0.54%** of the options value per day

Selling (Writing) an Option

When selling an option, many investors tend to sell longer dated options, since they have a higher premium, resulting in more income. Again, intuitively this makes sense to collect more income if that is the goal, however, once again this is missing the more important factor. The best practice for selling or writing options is to use shorter dated options. This is because Theta decays the value of an option faster in shorter dated options that has a higher theta. The more important factor to evaluate when selling options is not the total premium of the option, but rather how quickly the income can be collected.

Example: If an investor is neutral on BMO ($70.52) as of June 2nd, 2020 and wants to sell a Covered Call. In this example, comparing the July vs. August $74 Call option, the July option erodes more than twice as fast as the Aug option.

Sell July $74 Covered Call @ $159 ($1.59 option premium x 100 shares)

Theta = 0.0278 or $2.78 per day of time decay. Losing **1.74%** of the options value per day

Sell Aug $74 Covered Call @ $241 ($2.41 option premium x 100 shares)

Theta = 0.0203 or $2.03 per day of time decay. Losing **0.84%** of the options value per day

Strike Prices

Selecting a strike price for an options strategy requires the understanding of 3 primary factors. Each investor has different risk tolerances and goals, so we are laying out the pros and cons of each to help each investor choose. The important factors to consider when selecting a strike price are **delta**, **gamma** and price of an option. Delta is an important metric to determine the leverage of an options contract while Gamma is often overlooked as a factor for selecting strike prices. Delta tells us the sensitivity of an options contract to changes in the underlying stock's price, however Gamma will increase or decrease Delta with respect to changes in the underlying stock price.

TABLE 2

Strike Price Factors

	DELTA	GAMMA	PRICE
In the Money	High	Low	Expensive
At the Money	Moderate	High	Moderate
Out of the Money	Low	Low	Cheap

Source: OptionsPlay

Buying an Option:

In the Money: These options have a high delta but are generally expensive and mimic trading the stock while providing a fairly symmetrical risk profile as gamma is relatively low. These are generally useful as stock replacement strategies.

At the Money: These options have a moderate delta with high gamma, which increases delta when the trade moves in your favor and decreases delta when the trade moves against you. These are generally best used for speculating on the directional move.

Out of the Money: These options have a low delta and a low gamma but very cheap. These are generally only suitable for highly speculative trades where the investment thesis is a very large directional move.

Selling an Option:

In the Money: These options have the highest premiums but generally are not suitable for selling due to their small extrinsic values and have a very low probability of expiring worthless.

At the Money: These options have moderate premiums and provide the largest protection against losses but have a moderate probability of expiring worthless. The high gamma is a factor and generally a negative for options sellers as an ATM option can quickly lead to larger losses.

Out of the Money: These options have the lowest premiums, but their low delta and low gamma are attractive to options sellers as they provide a high probability of expiring worthless and lower probability of large losses.

Optimal Expiration Dates and Strike Prices for Income Strategies

For a quick summary of optimal expiration dates and strike prices, please read the guide below and the corresponding infographic.

1) Covered Calls – A covered call is an option strategy used to generate income on stock that is already held in a portfolio.

- Expiration Selection - 30-45 days.
- Strike Selection - 0.15 to 0.20 Delta (Far OTM) – Translates to 15-20% of the time the stock will get called away.

2) Short Puts – An income and stock acquisition strategy.

- Expiration Selection - 30-45 days.
- Strike Selection – 0.40 Delta (Slightly OTM). This gives a higher probability of the contract getting exercised by the buyer allowing the seller to buy the stock at a significant discount.

3) Selling Credit Vertical Spreads – This strategy is designed to cap the risk of selling a naked call or put

- Expiration Selection – 30-45 days
- Strike Prices
  - Sell 0.50 Delta (ATM)
  - Buy 0.25 Delta (far OTM)

Optimal Expiration Dates and Strike Prices for Directional Strategies

1) Buying a Call or Put – A simple directional strategy

- Expiration Selection - 45-60 days or greater
- Strike Selection – 0.50 to 0.60 Delta (slightly ITM)

2) Debit Spreads – A complex directional strategy with limited risk and capped reward.

- Expiration selection - 45-60 days or greater
- Strike prices –
  - Buy 0.50 to 0.60 Delta (slightly ITM)
  - Sell 0.15 Delta (far OTM)

Summary

Picking the right expiration date and strike price can sometimes be quite daunting with hundred or even thousands to choose from. Picking expiration dates depends on whether you are buying or selling an option, while strike prices depend on your outlook and risk tolerance. The counterintuitive aspect of selecting these comes down to the price, which typically isn't the best factor to use. When selecting expiration dates, focus on the rate of time decay or Theta. For strike prices, Delta and Gamma are important factors that are many times overlooked by novice investors. These best practices are summarized as follows:

Expiration Dates

Buying – Longer dated (45 Days or greater)

Selling – Short dated (45 Days or less)

Strike Price

Buying – At the money or slightly in the money

Selling – Out of the money

Take advantage of free access to OptionsPlay Canada: **www optionsplay.com/tmx**

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