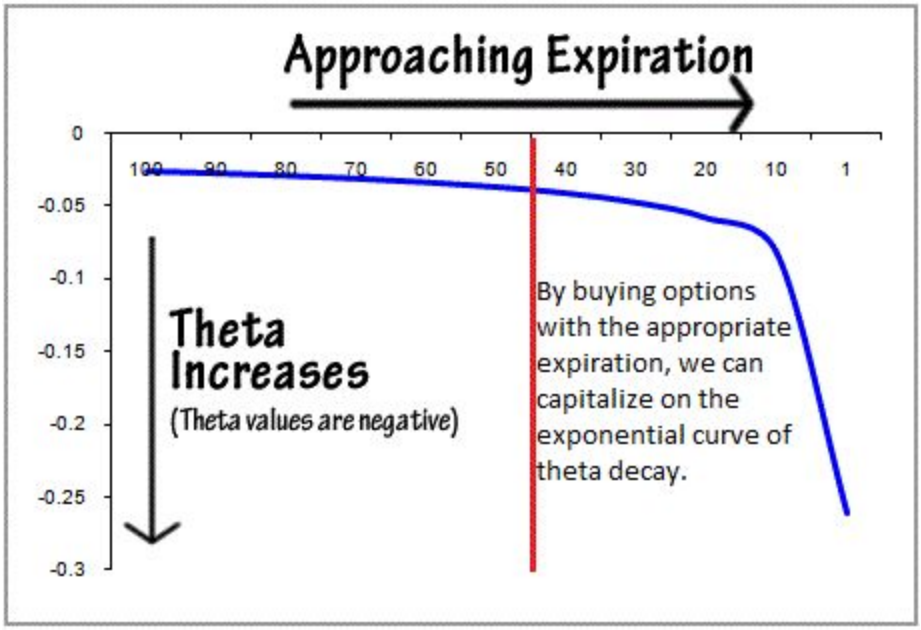
Selling Option Premium

One of the most consistent ways to profit from the market is selling option premium*. The profits aren't as insane as buying options, but the probability of profit (and therefore expected value) is higher. And so we focus on the basic factors that lead to making these strategies consistently profitable.

*Note that even though we receive all option premium upfront, we "earn" that premium by being able to close our position at a lower price than what we sold it for. Options held to expiration are subject to greater risk than closed out positions.

1. Time (Theta)

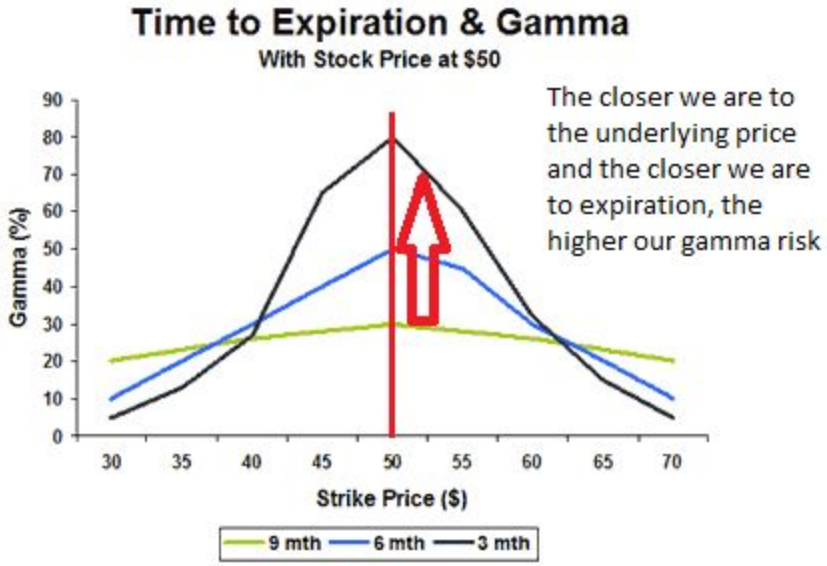
The most important factor to selling premium is time. Time gives us many wonderful things as premium sellers. First of all, time contributes to the extrinsic value of an option. Simply put, we receive more money for selling longer expiry options. But we also like the passage of time.



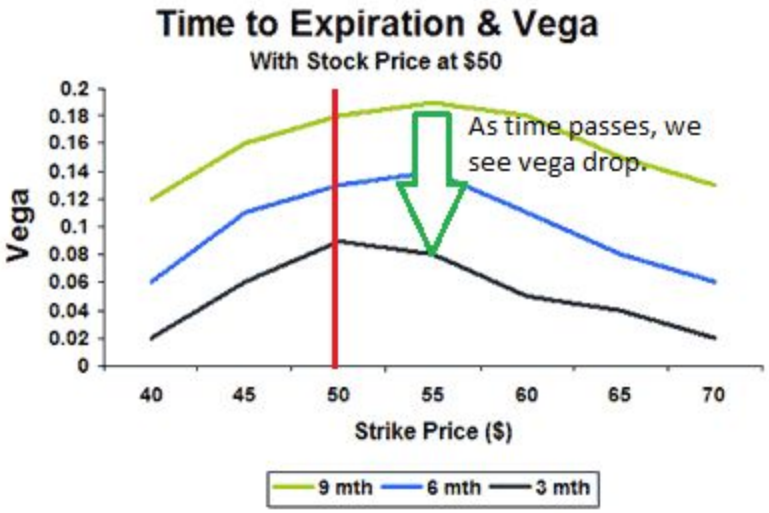
Most importantly time gives us the power of theta decay.

We can see that theta decay increases as we get closer to expiration, reaching exponential movement in its last days. By getting options with a long enough date to expiration, we can sit right on the "cliff" of the theta decay and earn our premium at a faster rate.

Why don't we simply sell premium when theta decay is going down the "cliff" face? The answer to this lies in the second wonderful thing time gives us: hedging. As we get closer to expiration we may be collecting more from theta decay (though the premium received from entering at that point most likely won't be worth the decay), but we also expose ourselves to more risk, most notably, gamma risk.



We can see that the closer we are to expiration (and price of the underlying) we expose ourselves to an ever-rising gamma (which defines the rate of change of the delta), thus putting us at risk of being blown out if a position moves against us in the last moments in the life of the contract.
By closing the position early, we avoid this trap.

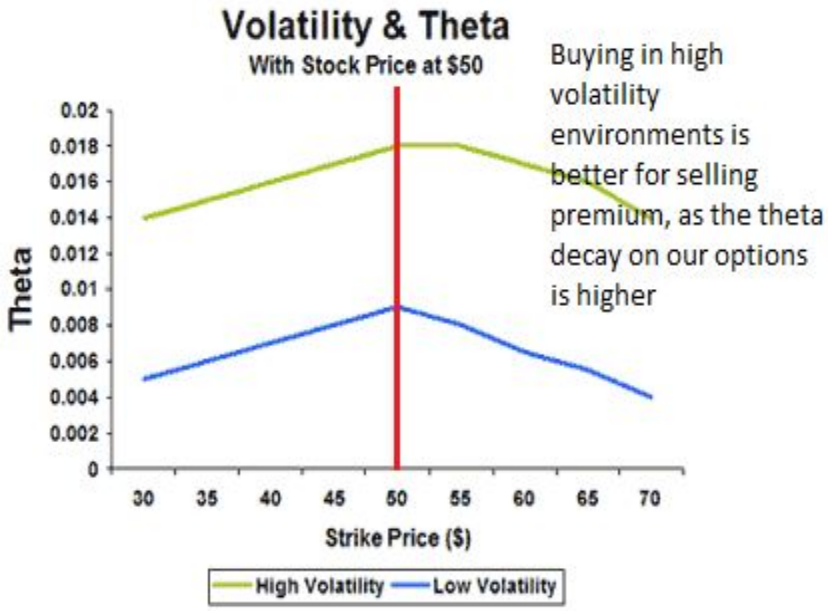


Finally, time allows for us to profit off of volatility as well.

We can see that as we approach the expiration date, vega tends to fall as well, allowing us to earn additional premium from a sort of “vega” decay.

2. Volatility (Vega)

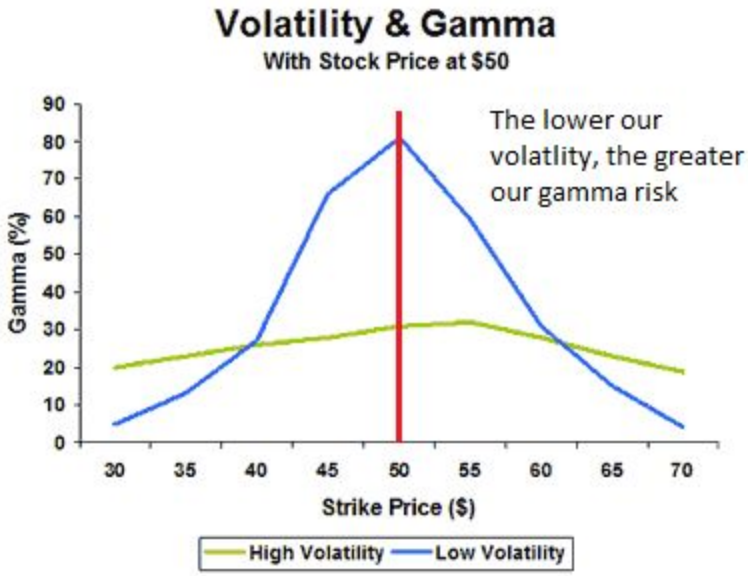
The second main factor of selling premium is volatility. Just like time, volatility contributes to extrinsic value of an option, allowing us to sell them for a higher profit. But there are other reasons we like volatility as well.



As we have seen already, time affects how volatility is priced into an option. But volatility also affects how time is priced into an option!

As we can see in the graph above, in high volatility conditions, theta decay is greater. Entering into a position during high volatility means we can start to earn more of premium faster.

Finally, entering into higher volatility environments also reduces our gamma risk



We see that in low volatility environments, our contracts are prone to higher gamma, thus putting our positions at risk given large enough movements.

Note, each underlying has its own volatility, which tends to be mean-reverting, so when we look at stocks with “high or low volatility environments” we mean to compare it to it’s own historical volatility rather than any other instrument.

By understanding the greeks, their meanings, how they change, and how they interact with each other, we can successfully trade for respectable, consistent profit.