Optimizing Your Options

Strategy Design For Option Traders

Need a clear picture of what it takes to employ a successful trading strategy? Here it is.

by Ashok Yarlagadda

Going into an option trade without a plan is usually a recipe for disaster. Why? Unless the trader is very experienced and has learned to master his emotions around investing, then his trade decisions will be biased by subjective views. Greed and fear can cause traders to do illogical things, especially when the trader does not follow a plan. Is there a better way? Yes. Develop a clear, objective trading strategy.

A trading strategy should have specific entry and exit criteria that have been analyzed and tested over time. The calculation should perform a risk–reward analysis of capturing smaller profits versus larger profits, then optimized over risk for different strategies and strategy setups. So let's cover the process of strategy design through optimization.

First Things First

First and foremost, decide what to trade. Whether it is stock options or futures options, you only want to consider trading securities whose options are liquid. Liquidity is a multi-faceted term that defines the relative ease of entering and exiting an option position. The definition of liquidity for an individual trader, who may typically trade a few contracts, will be very different from that for institutions that are trading hundreds. Liquidity encompasses the strike and expiration availability, bid–ask spread, volume, and open interest.

You want to find trade entry and exit criteria that reliably move in your desired direction within a specified time to warrant an option trade. The direction will be dependent on the type of option strategy you are employing. For a long call, you want upward movement and for iron condors, you want choppy, sideways movement. The trade can be triggered by technical analysis, proprietary models, or other criteria; however, the important part is that the entry and exit conditions are specific. With specific and repeatable criteria, it's possible to run backtests with option trades to reveal their past profitability and reliability to enable us to create a systematic trading plan.

To come up with trading ideas, you need to have knowledge of different indicators and trading strategies. As you become more knowledgeable about different indicators, you will naturally begin to look at adjusting the parameters to try and find settings that work best. As you become more advanced, you will also start looking at multiple indicators simultaneously. The creation of a systematic trading plan starts small and then expands.

For stock options, the initial test could start with Apple Inc. (AAPL) over a two-year period. If the backtest results are favorable, then the test should expand. Expanding the test over longer test periods will reveal if the strategy works

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through an entire market cycle. If the strategy holds up, then other symbols can be included for testing. Once a group of stocks is shown to be reliably profitable over time, that strategy should be optimized.

Optimization: Developing Optimal Trading Strategies

Optimization of a trading strategy involves adjusting multiple variables like profit and stop-loss percentages, strike price, and expiration selection with different strategies to find the best combination of parameters.

When evaluating different strategies, focus on specific metrics. While win percentage and profit amounts are vital to a successful trading plan, there are other key metrics that should be used: profit factor, efficiency, and profit/loss per day. Strategy optimization always involves tradeoffs, so the more complete your metrics, the better results you can expect. The example in Figure 1 shows that the 50% profit target is the optimal strategy because of its efficiency, profit factor, and PL/day, even though it doesn't have the highest profit amount.

Once you have an optimized trading strategy, you should consider other parameters when actually entering a trade. Your trade will have specific entry strikes and expirations, so you will want to verify they are liquid at the time of trade. Additional considerations include looking at the current implied volatility, intrinsic and extrinsic values, and the expected move that will tell you if the market is overpriced or underpriced at the time of the trade. We prefer underpriced if we are looking for directional movement and overpriced if we are looking for sideways, nondirectional movement.

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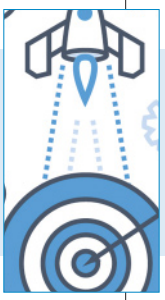

Ashok Yarlagadda is founder of Delphian Trading (www.delphiantrading.com) and CIO of Systems Soft Technologies. He can be reached at ashok@delphiantrading.com.

Profit Target %	Profit $	Win %	Profit Factor	PL/Day $	Days in Trade	Efficiency %
100	59,776.00	66	3.32	23.08	37	60
75	59,142.00	71	4.15	27.25	31	69
50	**48,999.00**	**79**	**4.84**	**29.17**	**24**	**76**
25	28,522.00	83	3.80	22.64	18	72

FIGURE 1: STRATEGY METRICS. When testing a strategy, use many different metrics for a better overall picture, not just win percentage and profit amount. In this example, the 50% profit target is the optimal strategy because of its efficiency, profit factor, and P/L per day, even though it doesn't have the highest profit amount.