

Volatility Risk Premium (VRP)

The volatility risk premium (VRP) is a concept in options trading that describes the tendency of implied volatility to exceed realized volatility over time. This means that options prices often include a premium for expected future volatility that is higher than the actual volatility that ends up occurring. By analyzing VRP, participants can gain insights into how options are priced and which strategies may be better suited at a given time.

Implied volatility is generally consistently higher than the realized volatility over a long period of time, which indicates the existence of a volatility risk premium in the market. Without conducting VRP analysis this premium can be hidden and makes long option premiums appear less expensive than they actually are.

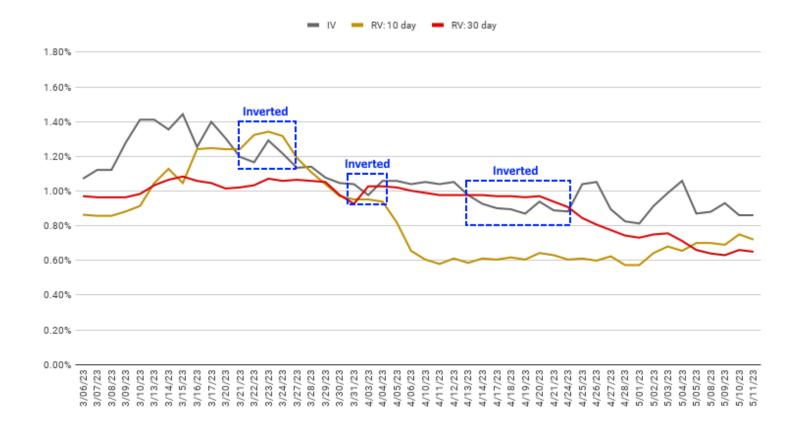
With that said, selling implied volatility can provide a significant head start on being profitable... if the premium is there. When VRP is relatively high, participants can sell options with a higher implied volatility than the expected realized volatility, which is particularly effective in low-volatility environments or when the participant has a strong directional view on the underlying asset.

While long options and debit spreads are burdened by the volatility risk premium, participants can still find them attractive for other reasons. These strategies tend to have a defined risk and a larger potential gain than loss, which makes stop loss orders unnecessary since the maximum loss of the debit also serves as a logical stop loss.

Timing is crucial in options trading, and measuring VRP helps participants determine the volatility aspect of their options strategies. Comparing historical realized volatility(RV) with implied volatility(IV) can highlight instances where IV is cheaper than RV, indicating an inversion of VRP. During weak or inverted VRP states, going long on option premium may provide an additional advantage. Wide debit spreads or single options are particularly appealing in these situations because they offer uncapped convexity.

SPX Volatility Risk Premium

Time Period: 2 months



VRP can also be analyzed through a ratio, calculated by subtracting the implied volatility from its realized volatility over a particular period.

A high VRP ratio indicates that the options market is pricing in a high level of implied volatility compared to the realized volatility. This implies that options may be overpriced, and participants can benefit by selling options or using strategies that benefit from a decrease in volatility.

Peaks in the VRP ratio are generally associated with local lows and the higher the ratio, the more "squeeze" potential, meaning a larger volatility tailwind if the market does move higher.

Conversely, a low VRP ratio suggests that the options market is pricing in a low level of implied volatility compared to the realized volatility that has occurred in the past. This could indicate that options are underpriced, and participants may want to consider buying options or using strategies that benefit from an increase in volatility.

SPX Volatility Risk Premium Ratio



VRP analysis should be used in conjunction with other technical and fundamental analysis to make informed trading decisions.