CVR3 VIX Market Timing



Table of Contents

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The CVR3 is a short-term trading strategy using the CBOE Volatility Index (\$VIX) to time the S&P 500. Developed by Larry Connors and Dave Landry, this strategy looks for overextended VIX readings to signal excessive fear or greed in the stock market. Excessive fear is used to generate buy signals in this mean-reversion strategy, while excessive greed is used to generate sell signals.

VIX Defined

The CBOE Volatility Index (\$VIX) measures the implied volatility for a basket of put and call options for the S&P 500. Specifically, the VIX is designed to measure the expected 30-day volatility for the S&P 500. Volatility is a measure of risk. Relatively high volatility reflects higher risk in the stock market. Relatively low volatility suggests low risk.



The VIX is also known as the fear index. Volatility and the VIX spike when fear hits the stock market. This causes a surge in implied volatility for put options, which means put prices also surge. Complacency is the opposite of fear. The VIX moves lower as fear subsides and traders are deemed complacent when the VIX reaches excessively low levels.

Buy Signal

There are three rules for buy signals and all three pertain directly to the CBOE Volatility Index (\$VIX). This article will list the rules in the first sentence and then provide a methodology based on SharpCharts.

- **1.** The daily low is above its 10-day moving average. This means the entire bar or candlestick must be above the 10-day moving average.
- 2. The daily close is at least 10% above its 10-day moving average. The Percent Price Oscillator (PPO) can be used to define rule two, but this means using a 10-day exponential moving average. PPO(1,10,1) shows the percentage difference between the 1-day EMA (close) and the 10-day EMA. A PPO equal to 10 or greater indicates that the close is at least 10% above the 10-day EMA.
- **3.** The close is below the open. This rule is a modification from Dave Landry. It simply means that the candlestick must be black or filled. A filled candlestick indicates that the close is below the open. A white or hollow candlestick indicates the close is above the open.

Buy Example

The example above shows the CBOE Volatility Index (\$VIX) the main window, the Percent Price Oscillator (1,10,1) in the middle window and the S&P 500 in the lower window. Getting all three rules to align on the same day doesn't happen as often as one would think. The green arrows highlight four buy signals from late July to late September 2011. Chartists might consider rule "windows" by looking for all three rules to trigger within a three-day timeframe. This would increase the number of signals.



Sell Signal

- **1.** The high of the VIX is below the 10-day moving average. This means the entire bar or candlestick must be below the 10-day moving average.
- **2.** The daily close is at least 10% below the 10-day moving average. Again, chartists can use the Percent Price Oscillator (1,10,1) to measure this. A value of -10 means the close is 10 percent below the 10-day EMA.
- **3.** The close is above the open. This modification from Dave Landry means that the candlestick must be white or hollow.

Sell Example

The example below shows one sell signal in the second half of 2011. The PPO (1,10,1) moved below -10 several times and there were a few white candlesticks below the 10-day moving average, but the three rules only aligned once. Again, relaxing these rules by creating a rule window (3 days) would increase signal frequency.



Stop-losses

Connors and Landry suggested relatively tight stop-losses. On long positions, a stop-loss would be triggered when the VIX moves below the prior day's 10-day moving average (on an intraday basis). Short positions would be closed when the VIX moves above the prior day's 10-day moving average. Alternatively, Connors and Landry suggest that traders could exit within two to four days. This makes the system quite short-term oriented. Chartists can also consider applying a stop-loss directly to the S&P 500 by using the Parabolic SAR.

Adjusting

This article is not designed to promote a single trading strategy right out of the box. Instead, it is designed to show a trading strategy developed by a professional. Larry Connors and David Landry designed this strategy to suit their trading preferences, which might not fit yours. Chartists should learn from the methodology, apply some tweaks and develop a strategy that suits their trading style. The CVR3 strategy uses the VIX exclusively, which means it is an excellent means to complement other strategies for trading the major

indices. For example, chartists could lengthen the look-back periods for moving averages and the Percent Price Oscillator (PPO) to make this a more medium-term oriented strategy. Chartists could also look at alternatives using weekly charts.



Also, note that the Chicago Board Options Exchange (CBOE) calculates volatility indices for a number of different ETFs and indices. These include the Gold SPDR, the US Oil Fund, the Euro Currency Trust, the Dow Industrials and the Nasdaq 100. Chartists can use these indices to develop trading strategies for the Dow, Nasdaq 100, oil, gold, and the Euro.

Symbol	Name	Exch
\$OVX	Volatility Index - Crude Oil	INDX
\$QQV	Volatility Index - Nasdaq 100 Trust	INDX
\$RVX	Volatility Index - Russell 2000	INDX
\$VIX	Volatility Index - New Methodology	INDX
\$VXB	Volatility Index - Jumbo	INDX
\$VXD	Volatility Index - DJIA	INDX
\$VXN	Volatility Index - Nasdaq	INDX
\$VXO	Volatility Index - Original Formula	INDX
\$VXV	Volatility Index - CBOE S&P 500 3-Month	INDX

Conclusions

The CVR3 strategy is a classic mean-reversion strategy that takes advantage of overextended conditions. The VIX is used to measure excessive fear and complacency. Once overextended, a reversion to the mean is expected as prices settle back down. Because the VIX is the only indicator used, chartist should also analyze price action and indicators for the S&P 500, which is, after all, the underlying security. CRV3 buy signals should be matched with bullish indications on the S&P 500 chart. Similarly, CVR3 sell signals should be matched with bearish indications on the price chart. Keep in mind that this article is designed as a starting point for trading system development. Use these ideas to augment your trading style, risk-reward preferences and personal judgments. Click here for a chart of the VIX with the PPO(1,10,1) and the S&P 500.

Further Study

From the creator of the CVR3 strategy, this book details more trading strategies and includes a chapter on exits. Connors also shows the details of his back-tests and provides guidelines to improve trading results.

