How to use Hamzei Analytics' Directional Volatility (DV) Indicator

By Fari Hamzei

A key element of your success in day trading hi-beta stocks and/or stock index futures is not to expose your hard-earned risk capital (and your emotions) to the market's whims and wishes any more than you have to. A clever way to achieve this goal is to avoid being in the markets during Small Range days and instead focusing on taking a 70% chunk out of a directional move during the Big Range[1] days. Hamzei Analytics' **Directional Volatility (DV) Indicator** is designed to guide you thru this tough endeavor.

On the surface, this is no easy assignment. Please note that our DV Indicator is not tasked with trying to detect the correct direction of the trade here. We have other, more specialized tools for that. All the DV indicator is trying to do for us is to look for the day that the asset in question is poised to move directionally (not whipsawing) on an intraday basis.

How does it accomplish this?

Simple. The premise behind the Directional Volatility Indicator is based on the widely researched and well documented fact that: ***it is much easier to predict the volatility cycles than it is to predict the price cycles for a given asset.*** Simply put: Volatility tends to contract and expand with reasonable cyclicality where price doesn't.

How is the indicator built?

We first measure the fluctuations of Range (High minus Low) of each daily bar vs. the distance (absolute value) between the Open and Close of the same bar. We then normalize these fluctuations by computing and plotting the standard deviation from a mean (of small number of bars) immediately preceding the last bar. The resulting curve is our DV Indicator(blue line). As a signal line, we also plot a simple moving average of first curve (red line).

How do we use it?

Begin with plotting at least one year's worth of daily prices. Then add the DV indictor underneath it. Look for low readings of DV (blue line) in the past. Compare this with the current value. If DV is below the signal line (red line) and falling towards, preferably nearing the yearly lows, a Big Range day is usually one or two days away. If DV is above the signal line (red line) and rising, stay away, the asset should continue to exhibit more whipsaw action for some time to come.

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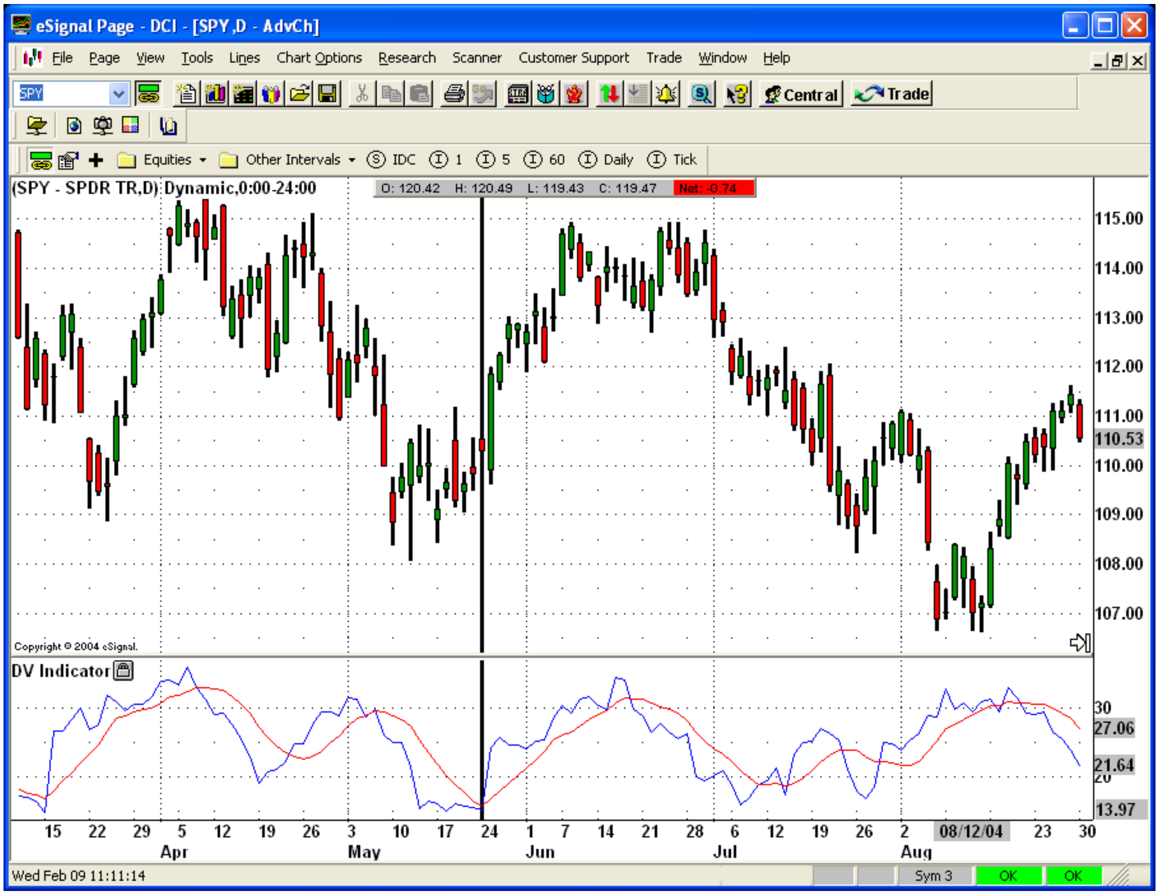
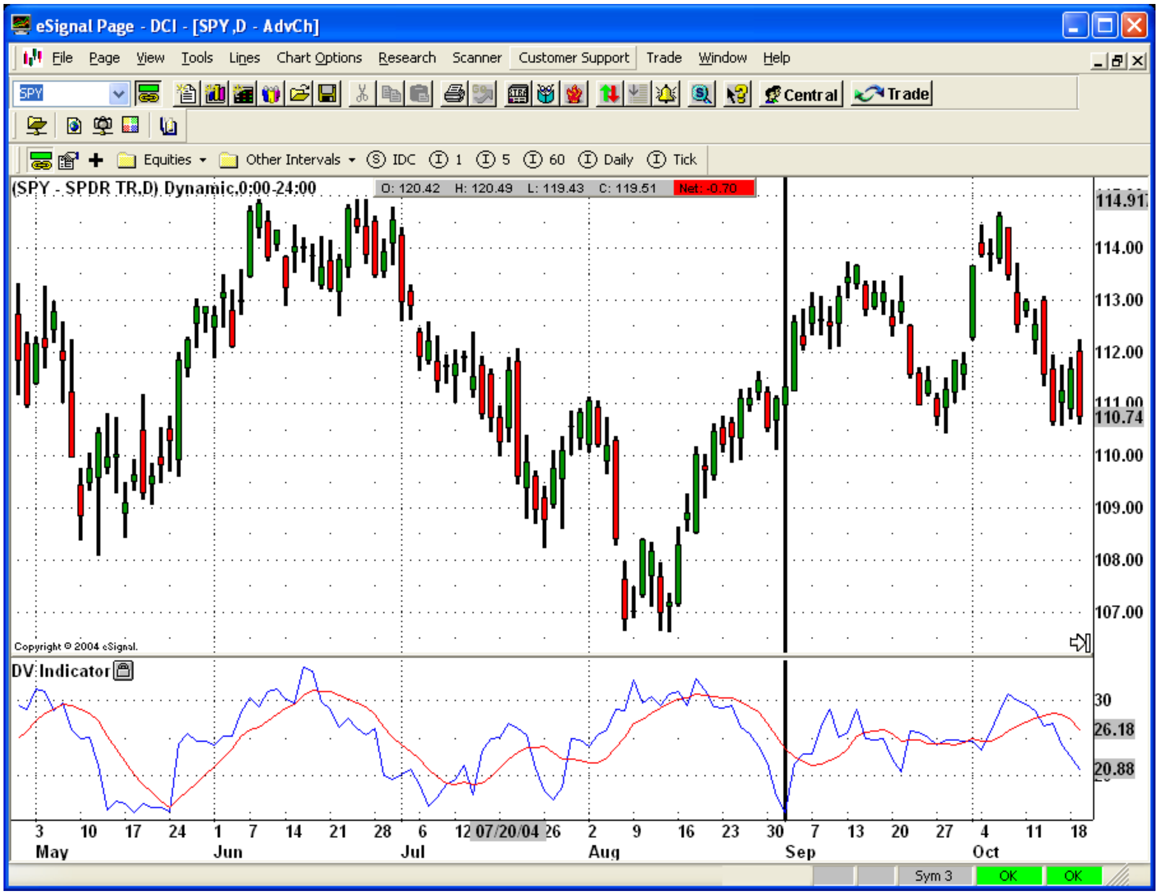
[1] A **Big Range** (High minus Low) day is defined as a day when the market opened at, or near the low [or high] of the day and closed on the opposite end at, or near the high [or low] of that day.

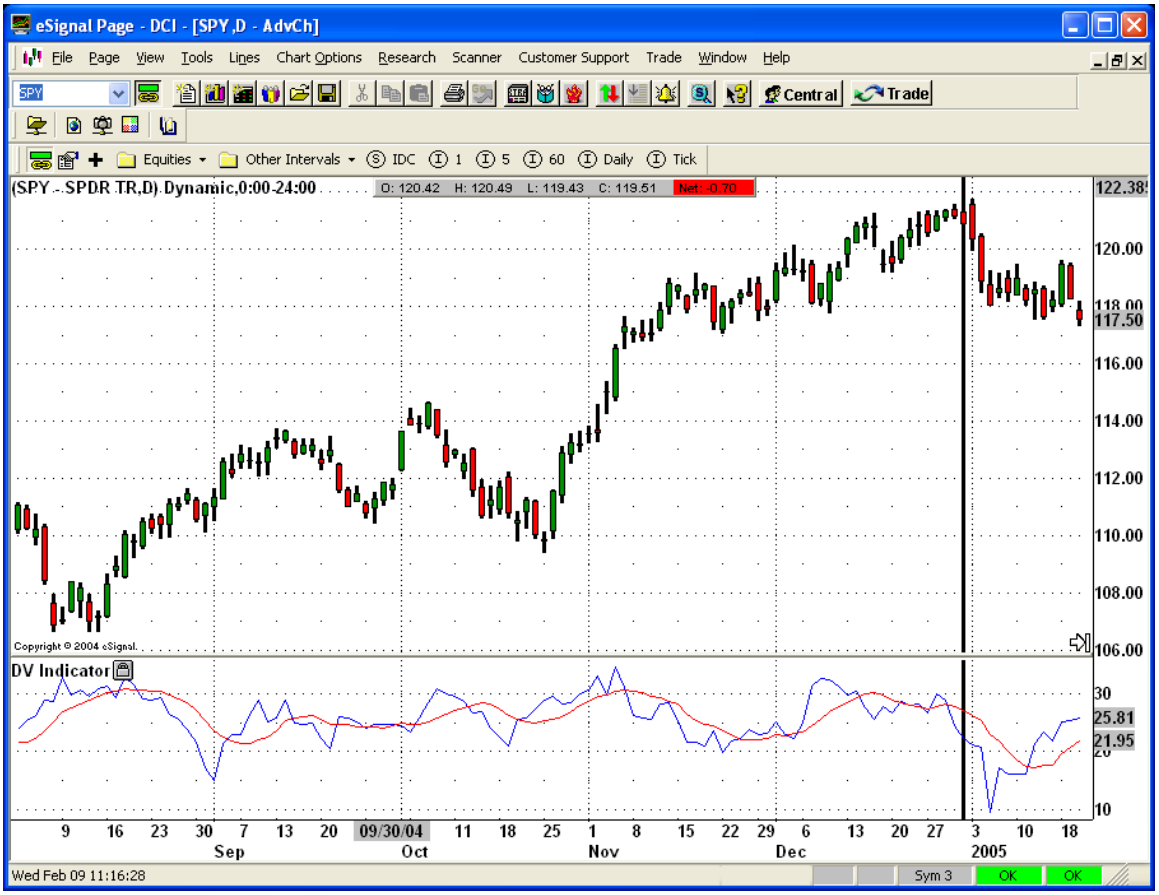
For better clarity, we present the daily chart of SPDRs (SPY) in three segments. On May 24th, 2004, the DV put in a very low reading. The next day we have a giant directional day.



On September 1st, 2004, the DV again reached a very low level. The next day we have another huge range day.



Here is another example. In late December, the DV for SPY was falling "off the cliff". This pattern usually precedes a violent directional move. Of course this time the move was to the downside. Download the indicator and try it on the QQQQ for the same period.



One caveat: do not apply this indicator to an intraday chart. Volatility skew for the intraday charts is no mystery. It is shaped like a "U". It is highest at the open (due to large retail activity) and at the close(due to heavy institutional activity).

Summary

The Directional Volatility Indicator can save you a lot of frustration by not exposing your hard-earned risk capital (and your emotions) to unnecessary trading during low range days.