Charts-by-Leaf.com
My Personal Trading and Investment Thoughts

Introduction to My Trend Strength Histogram & Colored Candles

For several years now, I have had several customized software scripts that were written for my stock charting software packages. Most of them were written with the intent of helping me monitor the expansion and contraction phases for the stocks/ETFs that I trade. One of the most useful scripts that I have is the one written to display a stock price's trend strength as calculated by J. Welles Wilder's Average Directional Index ("ADX") and its directional indicators (DI+ / DI-).

There are plenty of sources through Google that you can go to to learn more about the ADX indicator, so I'm not going to go into how it works or how it is calculated … let me just say that this software script was written to visually highlight the **direction and strength** of a given stock's price trend via a histogram and colored price candles.

The idea behind the simple histogram and the colored candle system was to create easy-to-understand visual guides that summarized the current condition or strength of a stock's price trend. Combining these visual guides with my other chart indicators helps me enter/manage/exit my trades on a more efficient basis.

Price Strength Histogram

The histogram that my software creates is a simple adaptation of Wilder's ADX indicator. Two things were changed … I wanted to have the ADX histogram to be colored – if the direction of the trend was upward (i.e., the DI+ indicator was > the DI- indicator) then the histogram's bars would be green in color. If the direction of the trend was downward, then the histogram's bars would be red in color.

I also wanted a simpler way to determine a trend's strength with the level that the histogram was at. To me the important levels for the ADX index are 55 and 15 – above 55, the trend strength as measured by the ADX was at what I called an extreme level that historically was difficult to maintain. When the index was at 15 or below, the ADX indicator was signalling a contraction in the price trend that was equally as extreme as when it was above 55 for expansion moves.

In my mind, it would be easier to have the extreme levels for expansions and contractions at simpler levels such as 100 and zero. Therefore I had the software script written to adjust the ADX value based on that ratio ((ADX – 15) x 2.5 = "new" histogram value).

There is a whole art to interpreting the price strength histogram, especially if you are monitoring multiple time frames when trading – suffice to say that is beyond the intended scope of what I wanted to accomplish with this introduction PDF. Future posts and PDFs will give readers a better understanding of how I utilize the histogram in making my trading decisions.

Colored Price Candles

I wanted my price candles to help me stay with an expansion move in price and to warn me when a contraction phase was underway … therefore I had the scripts written to have both the ADX value and the Directional Indicators reflected in the color of my price candles.

I also had warning lines drawn across the histogram at three key levels … one was drawn at the 100 level to mark when a trend was entering the extreme trend warning level; a second was drawn at the 20 level – I call the area between zero and 20 as the "Chop Zone" as this is where the trend strength histogram is located when price is typically not trending but still moving back and forth to a smaller degree. The last line is at zero, and when the histogram goes below this level I consider that the price trend as officially being in contraction mode.

Here is a definition of what each candle color means …

Trend Strength and Direction
- Uptrend in the price trend & the histogram *increasing in strength* compared to the prior bar – **lime green**;
- Uptrend in the price trend & the histogram de*creasing in strength* compared to the prior bar – **dark green**;
- Down trend in the price trend & the histogram *increasing in strength* compared to the prior bar – **bright red**; and,
- Down trend in the price trend & the histogram de*creasing in strength* compared to the prior bar – **dark red**.

Trend Strength Warnings
- When the trend strength is contracting to the point where the histogram reading is at or below zero – **yellow;**
- When the trend strength is in the extreme warning zone (>= 100) – **dark blue.** In addition to the dark blue candles, the software will paint "pink divergence dots"

above/below the blue candles when the strength of the histogram has weakened when compared to the prior histogram bar.

Price Warning

- When price has moved abnormally far away from its moving average, the software paints "warning" candles – **light blue.** When price has been range trading for a period of time, a candle painted light blue is what I refer to as a "kick-off" candle … i.e., it is warning me that an expansion phase has probably started or kicked-off. When the price warning candle is painted after an obvious expansion phase has been underway for a period of time, the warning is for a possible "exhaustion" move that typically is seen after a strong move or trend.

Let me show you visually what these candles look like …

(Double click on all charts to enlarge/open them)

So again, a given chart's price trend strength is just one part in assessing the risk/reward of entering a trade … the examples I post in separate blog write-ups and in other educational PDFs will hopefully show how I use these candle colors with my other primary chart indicators to help me "pull the trigger" on trades.

The idea behind the trend strength charting script was to "assist" me in just focusing on the actual trend of price and worry less about the shape or direction of each individual candle. By focusing on the chart's trend more, I will hopefully increase my average profit per trade.

Cheers … Leaf_West