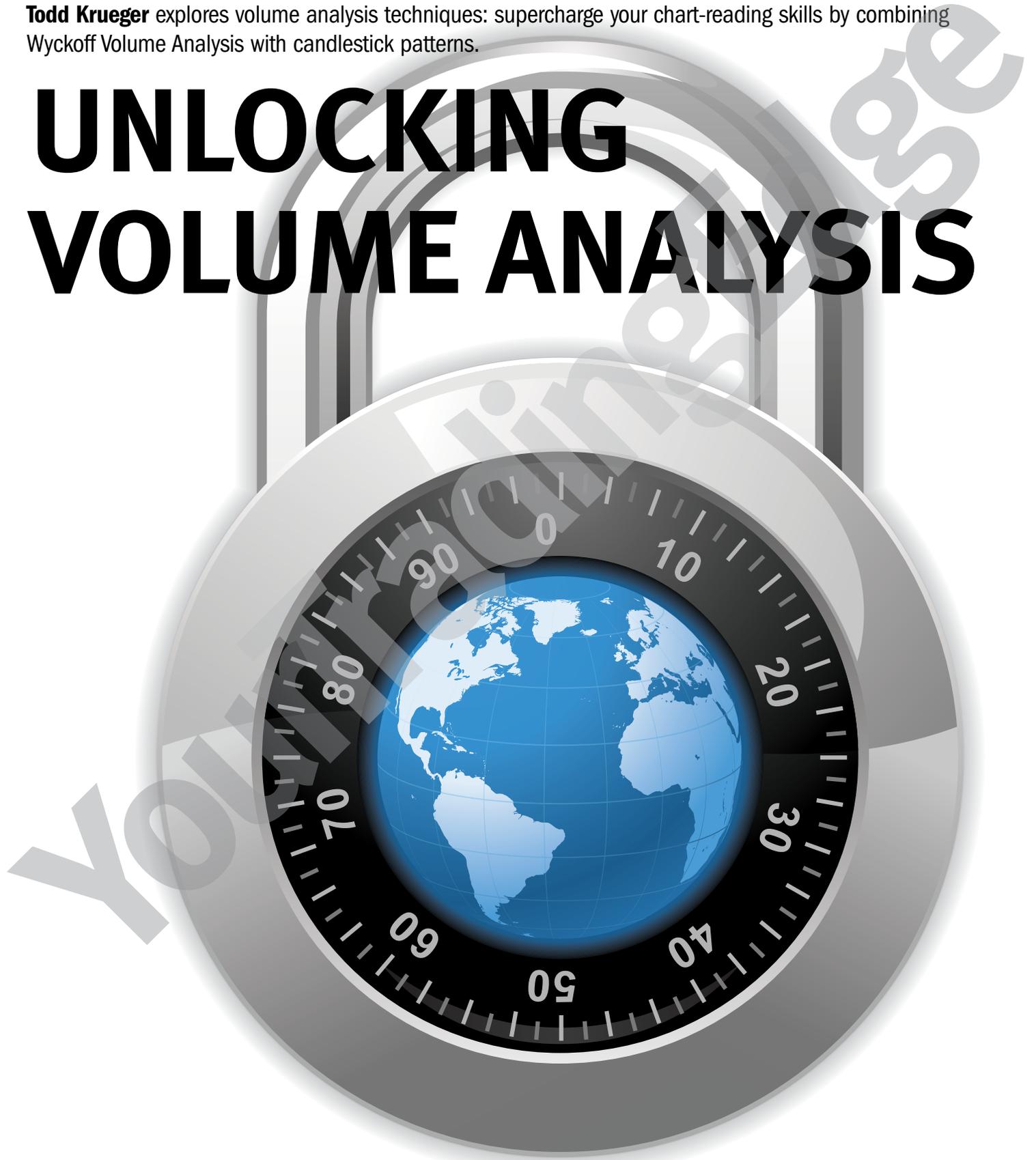
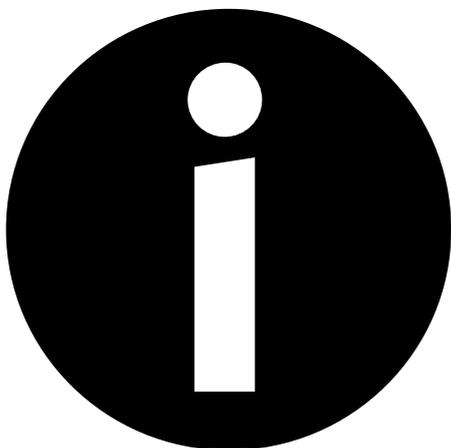


**Todd Krueger** explores volume analysis techniques: supercharge your chart-reading skills by combining Wyckoff Volume Analysis with candlestick patterns.

# UNLOCKING VOLUME ANALYSIS





### in the beginning

Most traders don't really know where to begin their educational journey. There are so many avenues that can be pursued that the entire process can seem overwhelming. Many traders who have traded for several years can remember the confusion surrounding the choice of which trading methods they would learn. Through my 24 years of trading, I have

learned that one of the keys to successful trading comes from being able to read a chart accurately to determine imbalances of supply and demand.

### Limitations of indicator-based trading

There are some undeclared pitfalls in indicator-based trading, the place from which most traders start. Nearly all the indicators widely available in charting software packages, for instance, are derivatives of price action. More specifically, they are dependent variables of price – indicators like stochastics or MACD (two of the most popular indicators being used today) make their movements and patterns based on the movements and patterns of the price they are following. These formula-driven indicators are then averaged or smoothed over time, which exacerbates their lagging nature. So, in essence, we are using only one or two variables, based on past price, to predict future price movement. Such techniques, when used in isolation, can never provide us with the edge we seek.

### Give your trading an edge

I am going to demonstrate how you can combine two different chart reading techniques, which have each been used independently, to identify the market imbalances of supply and demand. These imbalances are the reason price movements occur, and by incorporating both techniques you will be able to give your trading an edge.

### Understanding candlestick charts

Candlestick charting techniques originated with Japanese rice traders more than a century ago. These charts are highly visual, with each candle formed from the opening price, the high, the low and the closing price of a given period. The body of the candle shows the very important relationship between opening and closing prices. In figures 1 and 3 the candle bodies shaded red represent cases where the closing price is lower than the opening price; candle bodies shaded green represent situations where the closing price is higher than the opening price. The opening and closing prices form the body of the candlestick – the part filled with solid colour in the charts. If the high of the candlestick is greater than the candle body, it is shown on the chart as a vertical line above the body, its uppermost point being the highest price that was reached for that candle. The vertical line above the candle body is called the 'upper shadow'. If the low of the candle is less than the body, there is a vertical line, called the 'lower shadow', below the body. Long upper shadows denote selling pressure coming into the market. The price was trading higher, but sellers stepped in and auctioned the market lower. Long lower shadows denote buying pressure. Prices were trading lower, but willing buyers stepped in and auctioned the market higher. When there is very little difference in opening and closing prices, a horizontal line crosses the upper and lower shadows. This is called a 'doji' pattern and is said to represent indecision regarding future prices. Candle patterns are an excellent way to gauge the collective sentiment of traders. Many patterns emerge from this analysis technique, with many colourful names.

### Adding volume

As good as candles are for chart reading, in my opinion a major deficiency prevents

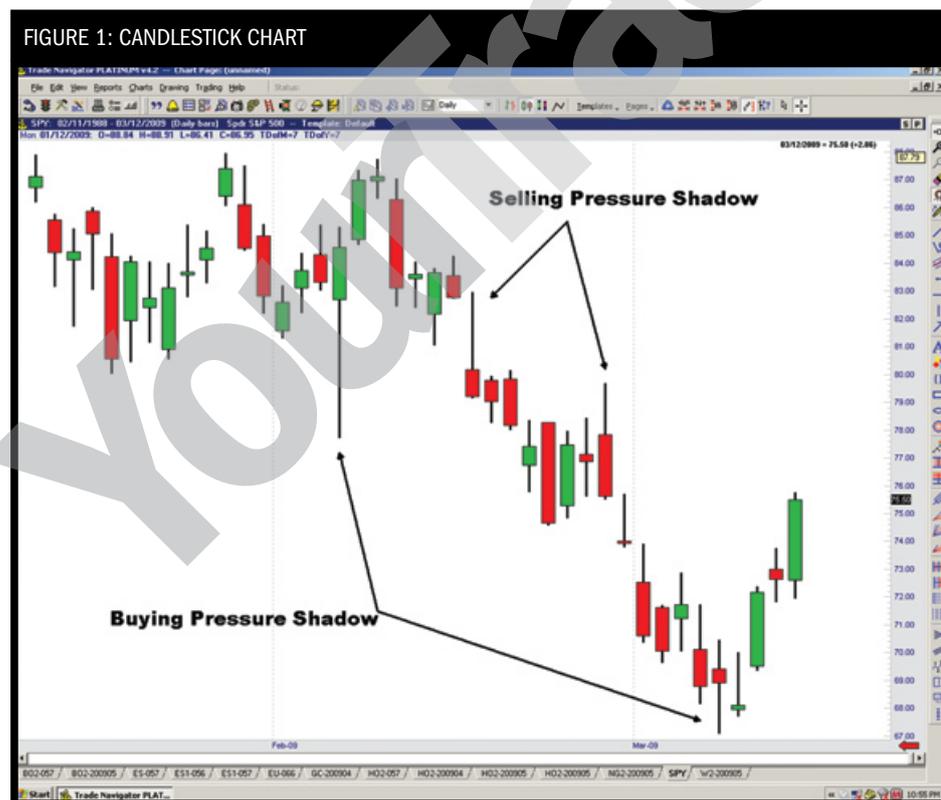


Chart Source – Trade Navigator



them from achieving even better results. Standard candlestick pattern analysis is performed in a vacuum, without including volume analysis. By including volume we are able to judge the strength of the supply and demand imbalance, which allows us to determine how big the following price move is likely to be and to tailor our position sizing to maximise our return on the trade. To ensure accurate volume analysis we use techniques pioneered by Richard D Wyckoff.

### Wyckoff Volume Analysis

Richard Wyckoff traded from the late 1800s to the early 1900s. During his career he discovered that it is possible to determine probable future price direction by understanding which side of the trade the smart money is supporting. Because smart-money traders have enormous capital to trade with, their trading activity leaves behind tell-tale signs on a price/volume chart. Most trading volume, in every market, comes from such professional traders. If we can decipher which side of the trade the smart money is trading from, we can mirror their positions and profit alongside them. Figure 2 shows the chart style Wyckoff used. It includes four variables: the high, low and closing price on a simple bar chart, plotted along with the volume for each bar.

Wyckoff showed there are four stages all markets move through: accumulation, markup, distribution, and markdown. Important price/volume patterns emerge in each stage. By understanding these specific patterns it is possible to determine the path of least resistance for future price movement. Because the Western world was not aware of candlestick charts in

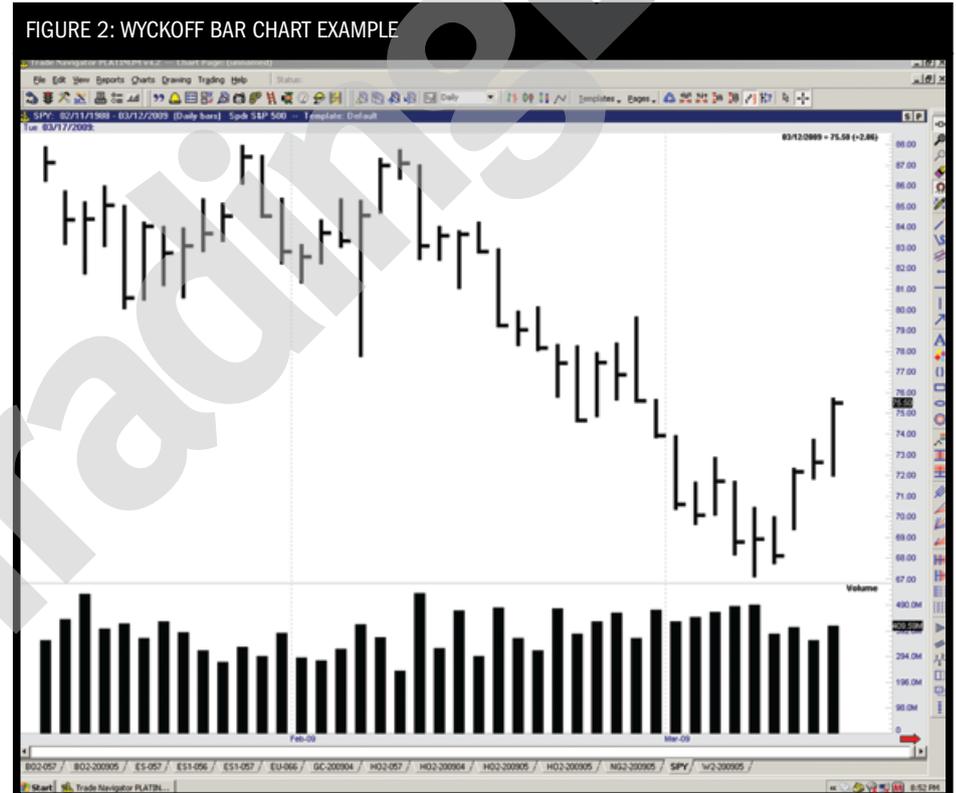


Chart Source – Trade Navigator

the early 1900s, Wyckoff's genius was limited to the common charts used in his day, namely the bar chart with only the high, low and closing price, and point and figure charts. A very important piece of the puzzle, which Wyckoff lacked in his analysis, was the inclusion of the opening price, and its relationship to the closing price. This relationship creates important patterns, as we have learned from the candlestick chartists. We, as traders in

the twenty-first century, do not have these charting limitations.

### Combining both approaches with Wyckoff Candle Volume Analysis (WCVA)

WCVA works because we combine the strengths of each method while simultaneously adding the critical missing links they both suffer from. WCVA is robust



and universal; it works in all time periods and in all markets (even forex, as we substitute traded volume with tick-based volume). Take, for example, the daily chart of the SPY, which is the exchange-traded fund (ETF) for the S&P 500 index. That market has been in a strong downtrend. I will show how to apply the 'Doji demand drying up' WCVA pattern to spot market reversals at the top of a retracement. Consider the doji pattern that is highlighted at point A in figure 3.

The SPY has retraced higher, yet in doing so it is having great difficulty moving any higher. Remember that Wyckoff taught that most of the volume in every market comes from professional traders. Here we can see that on 11 February 2009, as the candle forms a doji pattern after the price has moved up, there is no indecision from the professionals – they are not interested in higher prices and have withdrawn their buying, as evidenced by the very low volume. When professional traders are backing off from an upward move into a bigger timeframe downtrend, it is imperative private traders know this is occurring. It is an ideal time to establish a short position; or at the very least, to liquidate any long positions. The rules that are used to identify this pattern are:

- This candle's closing price is greater than the previous candle's closing price.
- Volume must be less than at least the last several candles.
- A doji candle pattern must be formed.

The ideal entry point is one tick below the low of the 'Doji demand drying up' candle. You want to see a quick response in price action to the downside. By waiting for price action to penetrate the low of the

FIGURE 3: S&P 500 DAILY BAR CHART

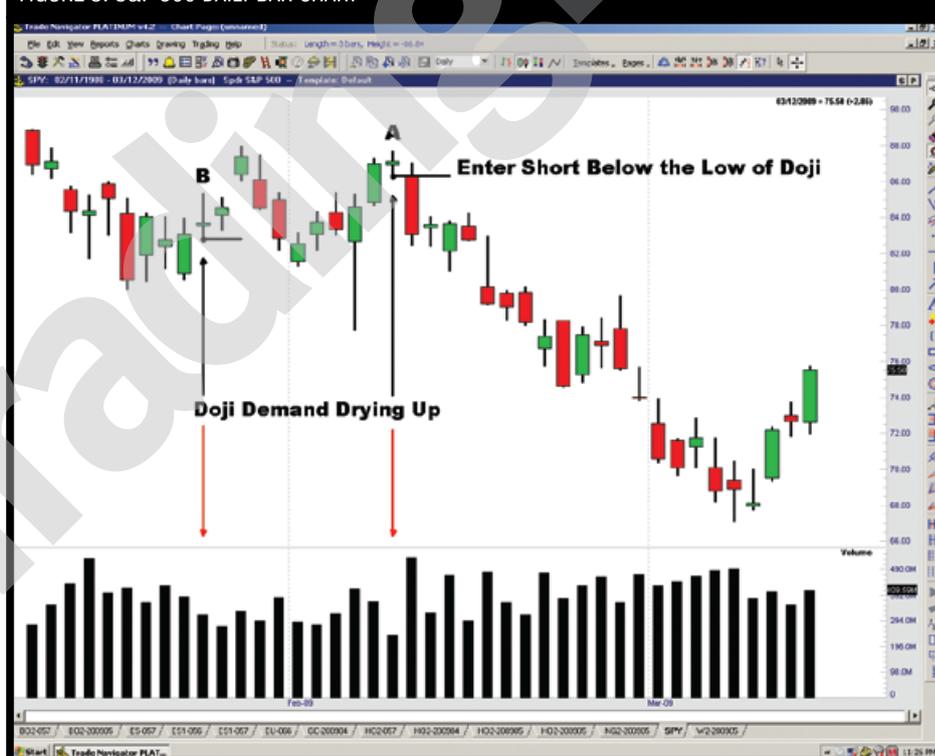


Chart Source – Trade Navigator

doji before entering the trade, we create an effective trading filter to prevent taking a sure losing trade in case the market does the unexpected and just continues higher (refer to the doji highlighted at point B – this filter prevents us from going short here).

This WCVA pattern has zero lag; once it occurs we are immediately aware of the weakness in the market and position our trades accordingly. **YTE**

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