



## **Volume and Divergence - A Trader's Bread and Butter**

*by Gail Mercer*

I remember the first time that I looked at volume on my charts and thought "there is something significant in those bars" but I just could not put my finger on it. So, I did what most other traders do, I sought knowledge. I read books, went to seminars, attended online webinars, and studied all the cutting edge techniques. The low volume bars, the high volume bars, the ultra high volume bars, the signs of weakness, the signs of strength, yet, on the live edge of the market the concepts eluded me. Instead of trading, I found myself frozen with fear of "pulling the trigger" because it could be hidden buyers or hidden sellers behind the bar.

After years of tears and frustration, I simply took volume off my charts. Maybe I just could not read those little sticks like others could. I opted to simply focus on price. Was price making higher highs and higher lows, or lower lows and lower highs, or was it in congestion (erratic highs and lows). And I simplified my volume analysis to these two questions: was the close greater than the open (buyers) or was the close less than the open (sellers). That was all I needed to know.

However, I continued to have this nagging feeling that volume was important, so I continued to occasionally look at it. Finally, I partnered with a site that specialized in Cumulative Delta Volume Analysis, FulcrumTraders.com. Cumulative Delta Volume Analysis displays, in a candlestick formation, what is happening with buyers and sellers. In other words, you can visually see the volume displayed almost identically to a candlestick price chart. For the first time, I felt that I may actually begin to understand this "volume stuff".

I watched their entire series on Cumulative Delta Volume Analysis. The application that I was most attracted to was the momentum play. Primarily because I understood divergence and the momentum play was based on divergence. It was also the most visual for me to pick up. Finally, I was beginning to see the volume analysis picture.

For traders who need a better understanding of volume divergence, I will start by explaining that the standard volume indicator is non-directional with volume beginning at zero. When price makes higher highs, the volume bars should also be making higher highs. And when price is making lower lows, the volume bars should be making higher volume bars. This is why I say it is non-directional. Although there are many types of divergence, in its simplest form, if price makes a new high and the volume bar makes a lower high, that is divergence. Or, if price makes a new low and the volume bar also makes a new low, then that is divergence, as well. Remember it is non-directional.

**Figure 1: Cumulative Delta Volume Analysis - Euro Three Minute Chart** shows these basic concepts in action. First, the Cumulative Delta Volume Analysis makes a higher high but price does not follow. In other words, buyers received no reward for their efforts, also known as divergence. The result is that price goes down. Then price makes a higher high on lower volume, also known as divergence. Simply, as price ticked up and made a new high, the volume analysis showed there were no buyers to continue the upward movement. Again, down goes the market. Finally, price makes a low, which is then retested three consecutive times. On the first test, the volume is higher but each subsequent test shows a decrease in interest by the sellers, again divergence. In other words, sellers have dried up and buyers are taking control.



**Figure 1: Cumulative Delta Volume Analysis on Euro Three Minute Chart**

When I began considering the use of Cumulative Delta Volume Analysis, I was faced with several challenges: Cumulative Delta Volume Analysis is offered on a limited number of platforms, none of which I wanted to use. Then there was the issue if I programmed it in new platforms, how much data would be available? Cumulative Delta Volume Analysis is calculated off the bid and ask and most data providers have very limited historical data.

So I began thinking, now that I have a better understanding of what to look for and I could see volume divergence in the Cumulative Delta Volume Analysis, I should be able to see it in my volume bars.

***The secret was where to analyze the volume bars. Instead of looking at every volume bar, the important volume bars were the ones where price makes a high or a low.*** I began an intensive new look at my volume bars. This time, instead of focusing on every volume bar as it related to price, I focused solely on the volume bars that coincided with a high or low. I made my own volume bars that were colored based on price bars that made either a high, a low or a high and low at the same time.

**Figure 2: Standard Volume Bars Versus Volume on Highs and Lows** shows the difference between standard volume bars and volume bars that are at either a high or a low. If the price bar did not make a high or low then it was colored white as it contained no information. If the price bar made a high then the volume bar is blue. If the price bar made a low then the volume bar is red. If the price bar made a high and low together then I need to look at the close to determine the significance of the volume bar. If the price bar made neither a high or low then I do not need to see it and, therefore, it is not displayed.



**Figure 2: Standard Volume Bars Versus Volume on Highs and Lows**

Now that I can identify which volume bars to analyze, will the volume bars show the same concepts and movement as the Cumulative Delta Volume Analysis bars? Yes. **Figure 3: Euro 3 Minute Chart on**

**Colored Volume Bars** is the same chart as Figure 1, except instead of using Cumulative Delta Volume Analysis, I used the new volume colored bars.



**Figure 3: Euro 3 Minute Chart on Colored Volume Bars**

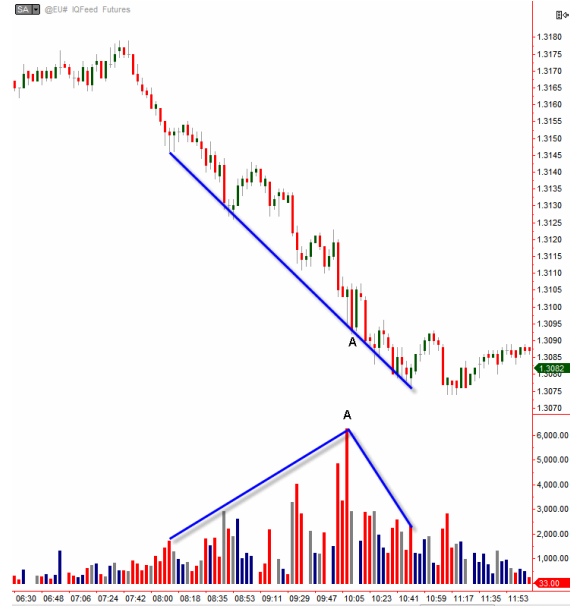
Since I know that I only need to compare price high volume to price high volume and price low volume to price low volume, the analysis is much easier. Anytime price makes a high (blue volume bar), I compare the blue volume bars. If the new high is on lower volume, we have divergence. Anytime price makes a low (red volume bar), I compare the red volume bars. If the bar is gray, I need to look at the close of the price bar. A close that is greater than the open is an up bar. A close that is less than the open is a down bar.

Although it looks different when compared to the candlestick Cumulative Delta Volume Analysis, the analysis is almost the same. At Point A, when price made a lower high, the blue volume bars were increasing. In other words, although buyers came into the market, there was no reward for their efforts and price falls.

Point B, price makes a high and then comes back to retest the high. This is where the volume analysis bars are slightly easier to read. First, you look at the highest volume bar associated with a high (gray bar that closes greater than the open). Then you look at the volume bar on the highest high, which is lower. This indicates divergence and price will normally fall off that divergence.

Then at Point C, price makes a low. At Point D, initially testing the low, the volume bar is higher. However, the next two bars come back and test the low, each of lower volume. This signals a potential market bottom.

In addition to the bar by bar analysis described above, I can also look at the bigger picture by comparing the downtrend volume since price is making lower lows and lower highs. **Figure 4: Downtrend Comparative Volume on Lows** shows that the selling climax occurred at Point A. Each low after Point A was on lower volume (divergence), indicating weakness in the trend.



**Figure 4: Downtrend Comparative Volume on Lows**

How can you incorporate this into your trading plan? Simple. If price is in a downtrend, look for price at the highs, **Figure 5: Downtrend Entry**. Again, use the tallest volume bar during the retracement (pullback). Then look for divergence at the highs, also called low volume test.



**Figure 5: Downtrend Entry**

For an entry in an uptrend, look at the volume on each low. Remember to use the tallest volume bar on the retracement (pullback). Then look for diverging volume on the lows, **Figure 6: Uptrend Entry**.



**Figure 6: Uptrend Entry**

You can obtain this free volume indicator for TradeStation or Multicharts by visiting our website at [www.TradersHelpDesk.com](http://www.TradersHelpDesk.com).