

Systematic Interpretation of Volume & Breadth

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- Examine approaches to incorporating volume and breadth into systematic methods

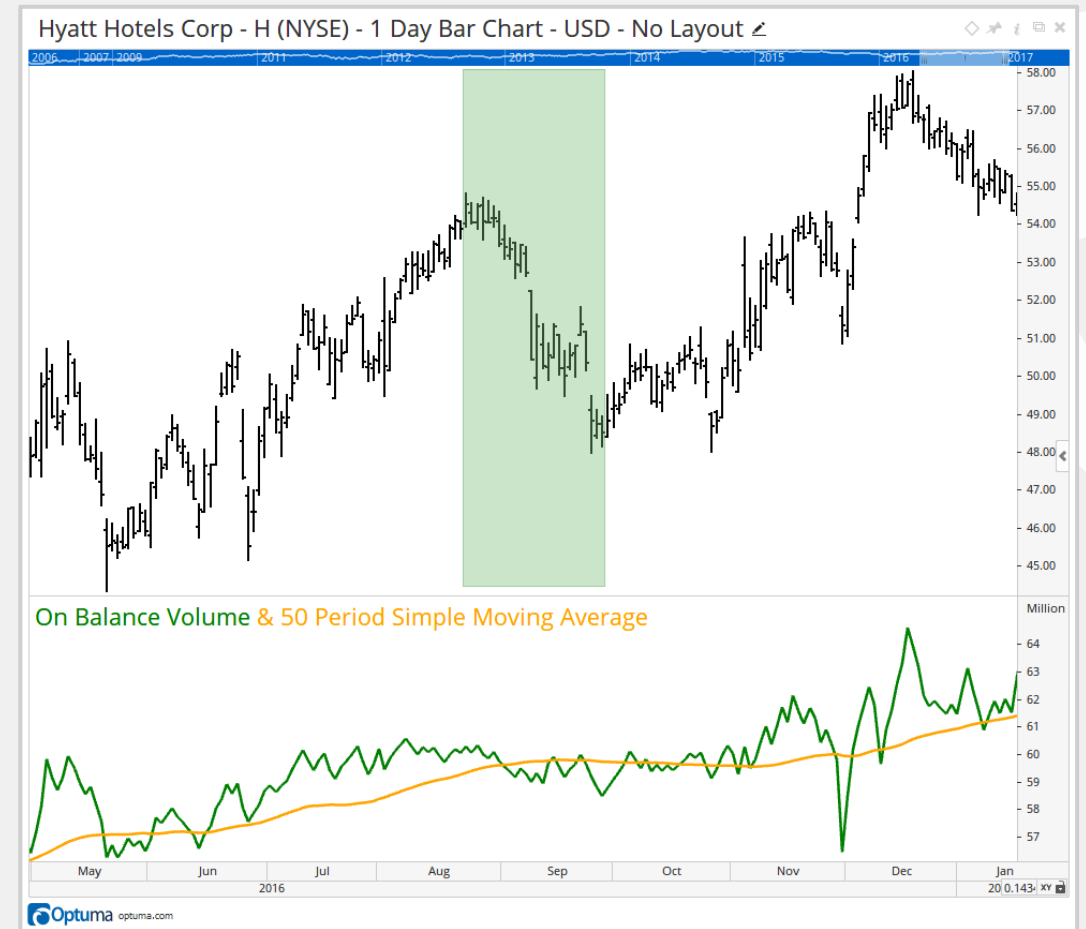
Systematic Interpretation of Volume & Breadth

- There are many ways that we can use volume and breadth in trading rules.
- We've looked at many volume and breadth indicators. They can be grouped into two main categories:
 - Accumulation Indexes.
Eg OBV, Advance Decline Index
 - Oscillators.
Eg Arms Index, Herrick Payoff Index
- The approach we take depends on which type of Index we are using.



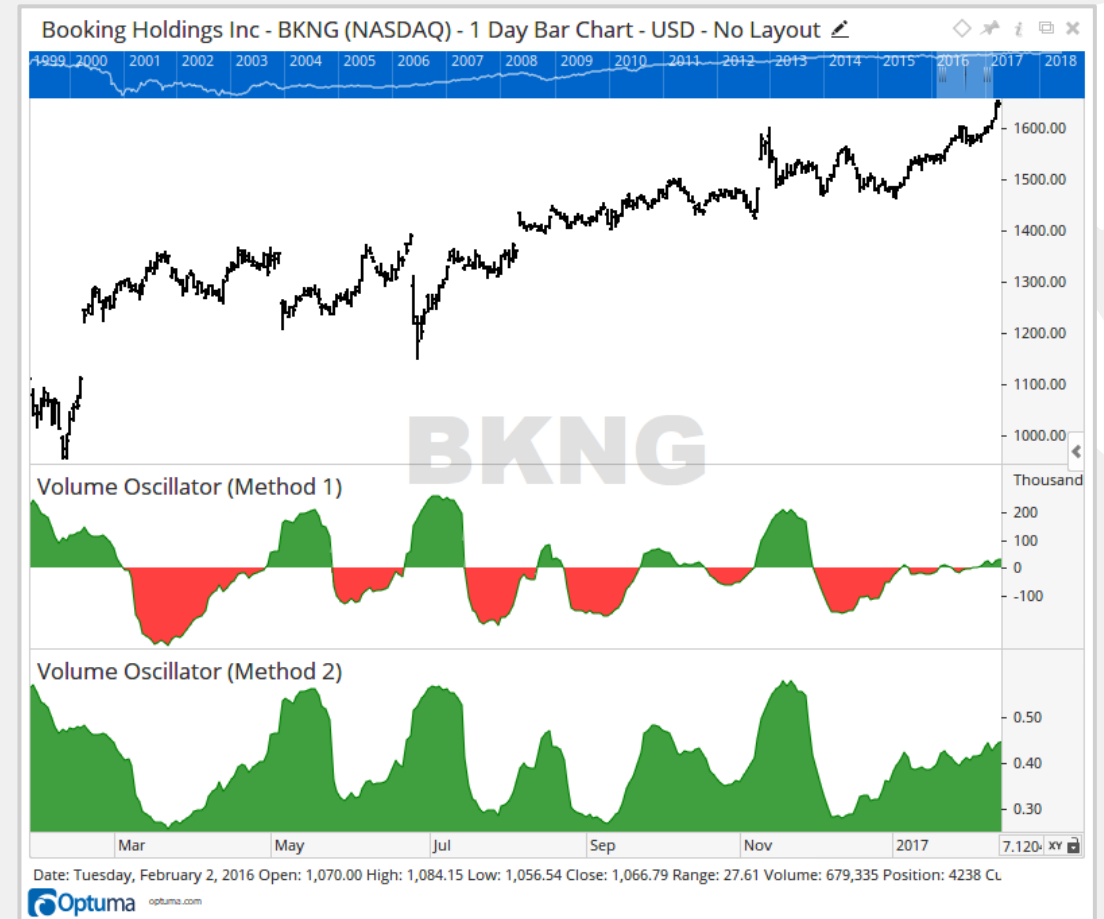
Systemic Accumulation Indexes

- It is important to smooth the data for an Accumulation Index.
- Then we look at the general trend of average line to determine if volume is:
 - increasing and supporting the current trend or
 - decreasing and reaching an equilibrium.



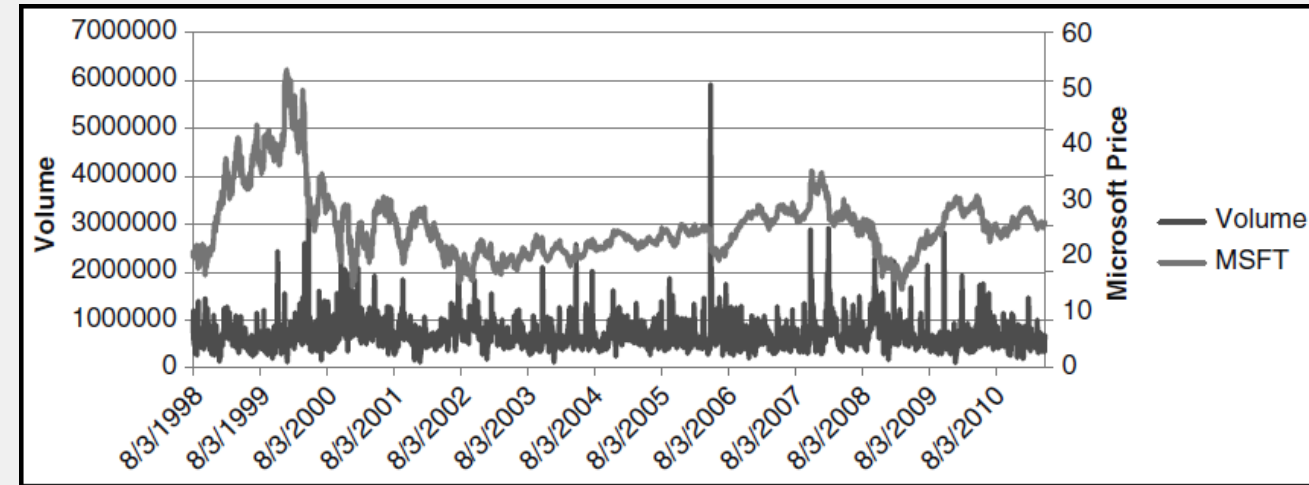
Systemic Oscillator Indexes

- With our Oscillator Indicators, we are looking for extremes in the values.
- High volume confirms a new price direction.
- Extreme volume is more likely to be a reversal signal.



Identifying a Volume Spike

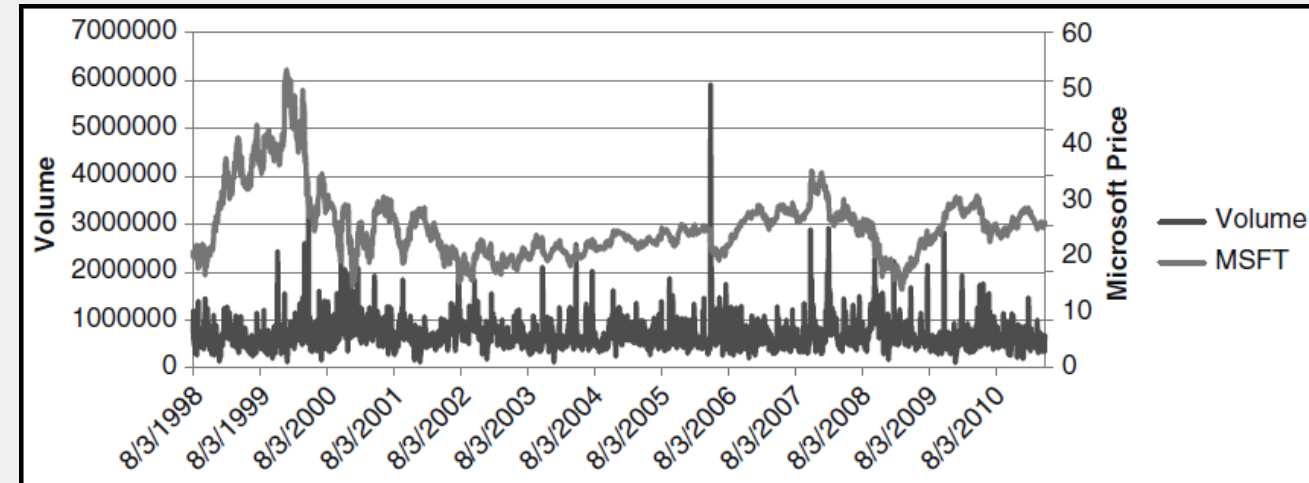
- One of the best examples of useful information which can be detected.
- At least double the average volume.
 - Average calculated over a lookback of over 3 months.
- The average can be “lagged” by a few days so that increases in volume leading into a spike do not increase the average.



- Note that volume spikes are not as extreme when dealing with futures markets and indexes.

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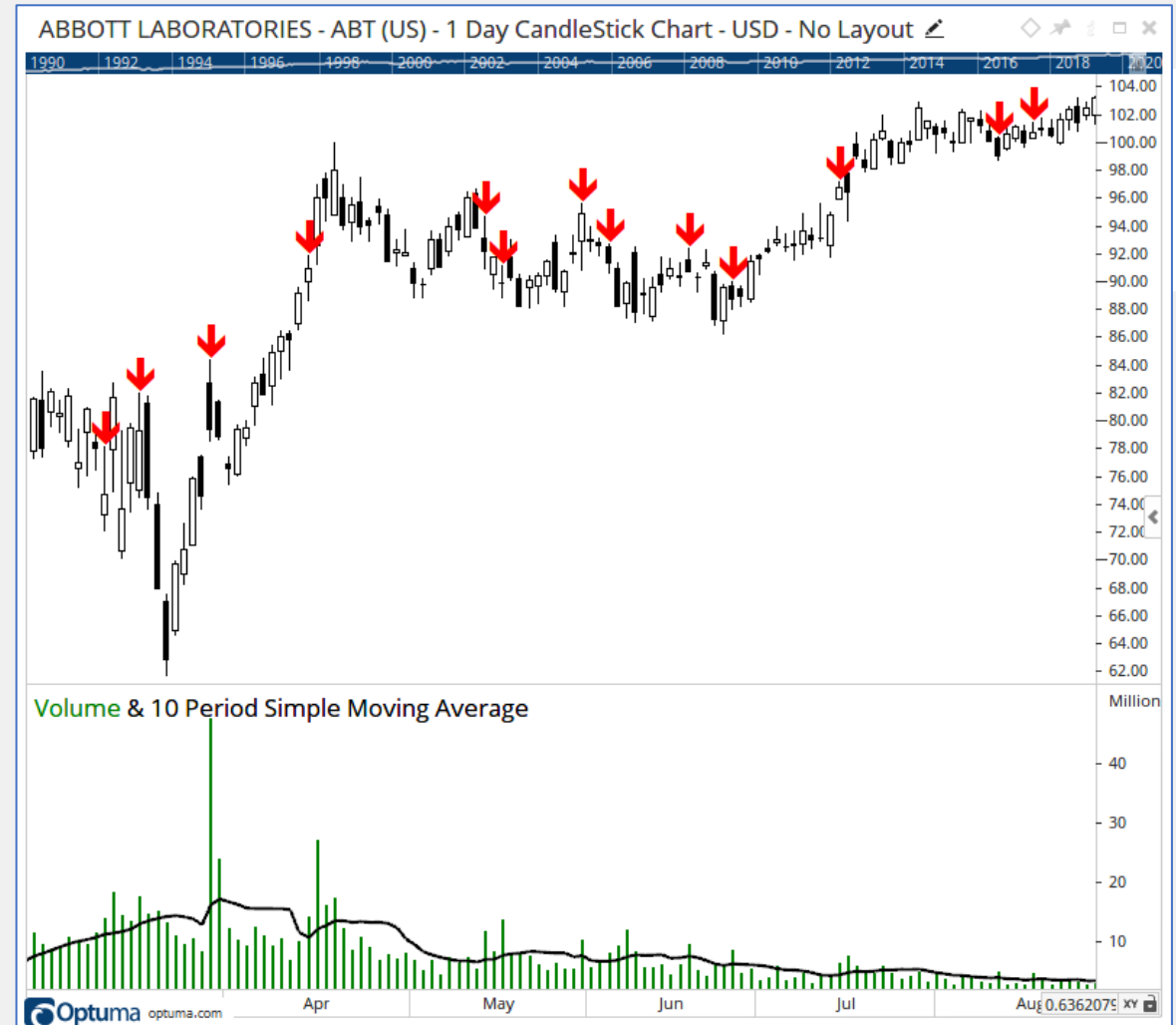
Moving Average Approaches

- One way to use volume to confirm price is to apply a 10 period moving average to volume and a 20 period moving average to price.
- It can act as a filter keeping you out of the market when the volume is below the average.



Waxenburg Approach

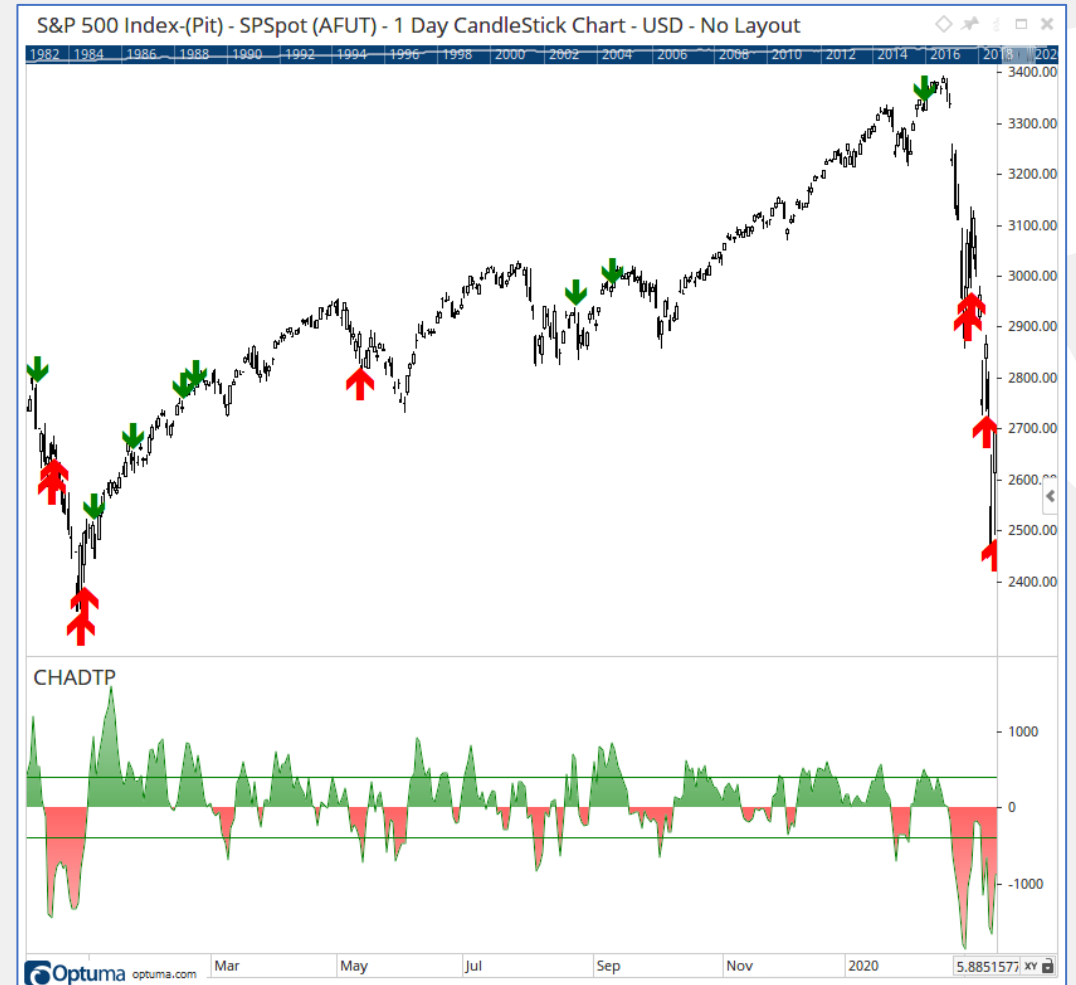
- Similar to the Moving Average approach, Waxenburg required that a change in trend in price by confirmed by a 20% increase in volume.
- Waxenburg used the extreme volumes to indicate the end of a sell-off.



Advance-Decline System (CHADTP)

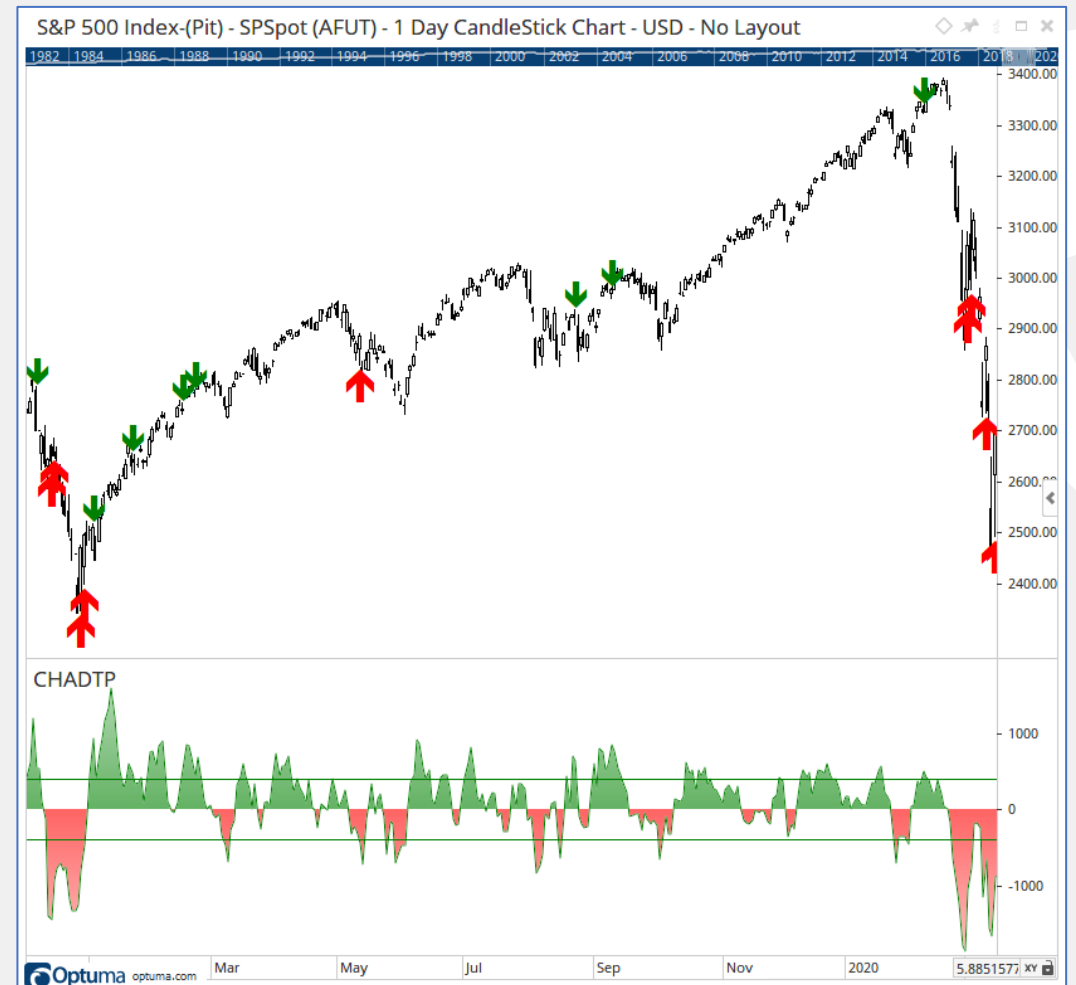
- Developed by Larry Connors and Blake Hayward.
- Used on S&P Futures based on NYSE breadth.
- They determined that values around 400 are extreme levels where they can be considered to be overbought or oversold.

$$CHADTP = (Sum(AdvancingNYSE,5) - Sum(DecliningNYSE,5)) / 5$$



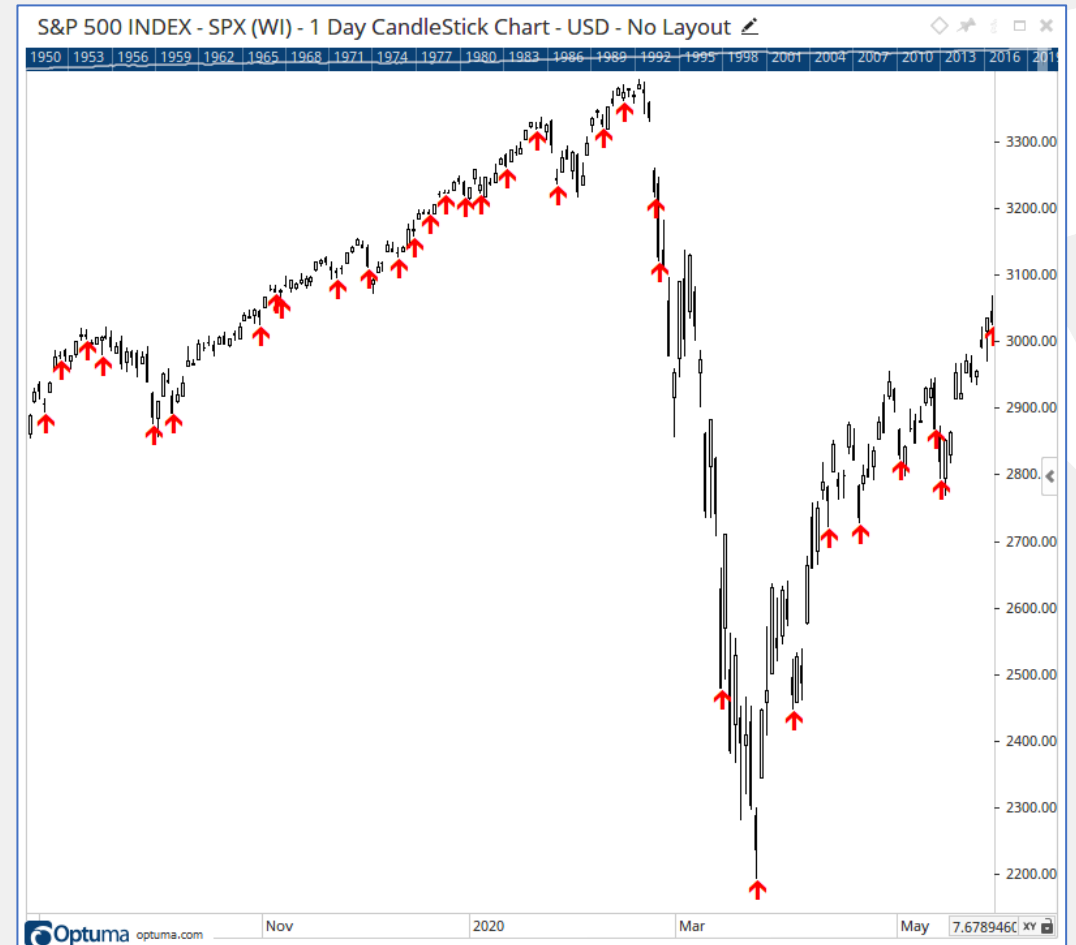
Advance-Decline System (CHADTP)

- Sell Short when CHADTP > 400 & trading more than 10 points below previous low.
- Buy Long when CHADTP < -400 & trading more than 10 points above previous high.
- Target returns over 5-7 days.
- Returning to the -400 to 400 range is an opportunity to sell.



Breadth as a Counter-Trend Signal

- Equities tend to be mean-reverting because there is more noise than in other sectors.
- Larry Connors has shown that more declining stocks is an indication of a pending advance.
- If number of decliners increase for 3 days, then the S&P typically increases by 0.5% the following week.
- NASDAQ by 0.8%.



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