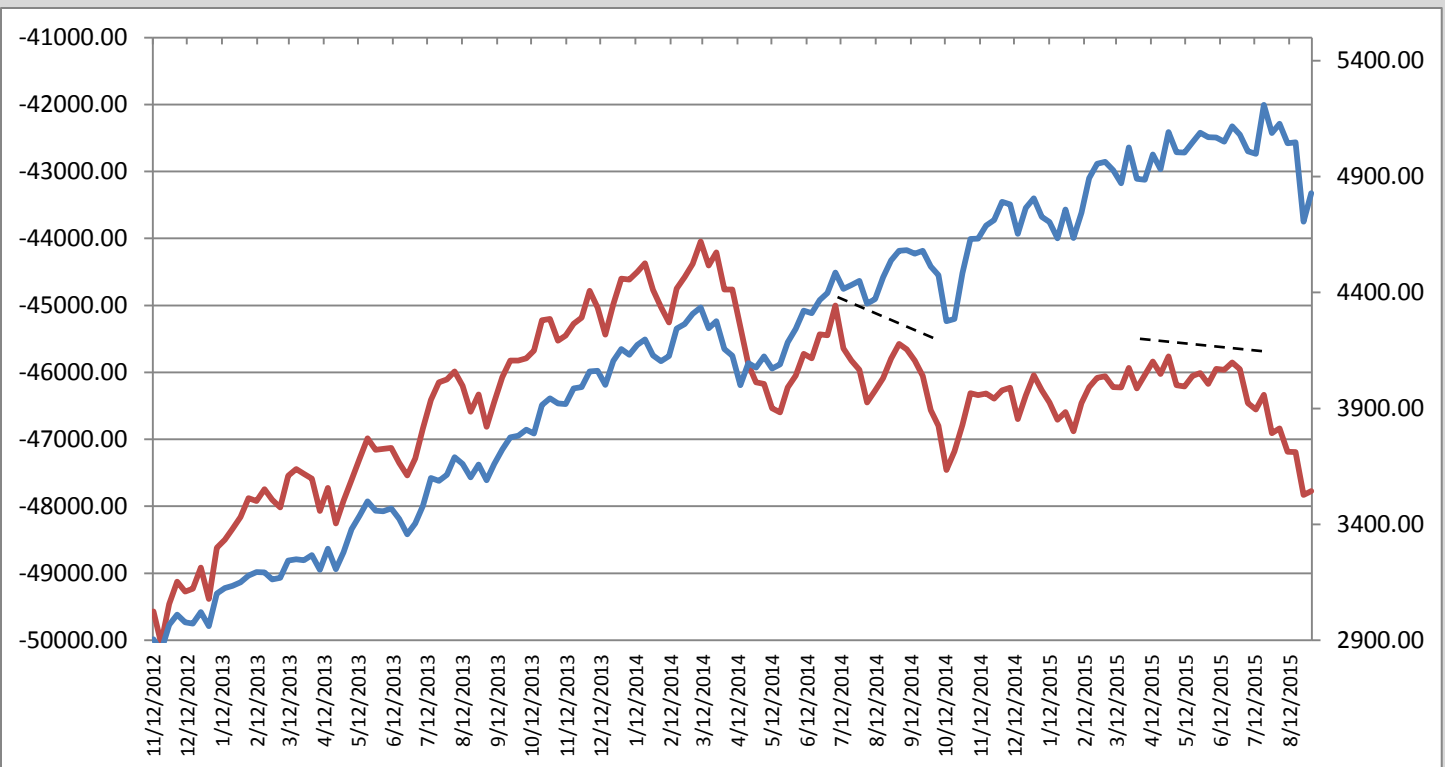




### Nasdaq breadth divergences

Needless to say the August waterfall stock market decline has been the most severe in 4 years. While recent various trend and momentum measures provided an indication of the probability of lower prices, Nasdaq market breadth, (an assessment of liquidity and the balance of power) between buyers (demand) and seller (supply), provided a warning recently as well. A look at the Nasdaq advance decline line (red) illustrates this point. In July of last year as the Nasdaq (blue) moved to a new high for the year the advance decline line made two successive lower highs which ultimately preceded the October 2014 correction. More recently as the Nasdaq moved to new all time highs the advance decline line failed to make a new high.

### Nasdaq and advance decline line



Critics of Nasdaq breadth will cite the fact that this indicator has a downward bias as a result of the history of Nasdaq delistings. While this is true the Nasdaq is preferred over NYSE advance decline data for two reasons:

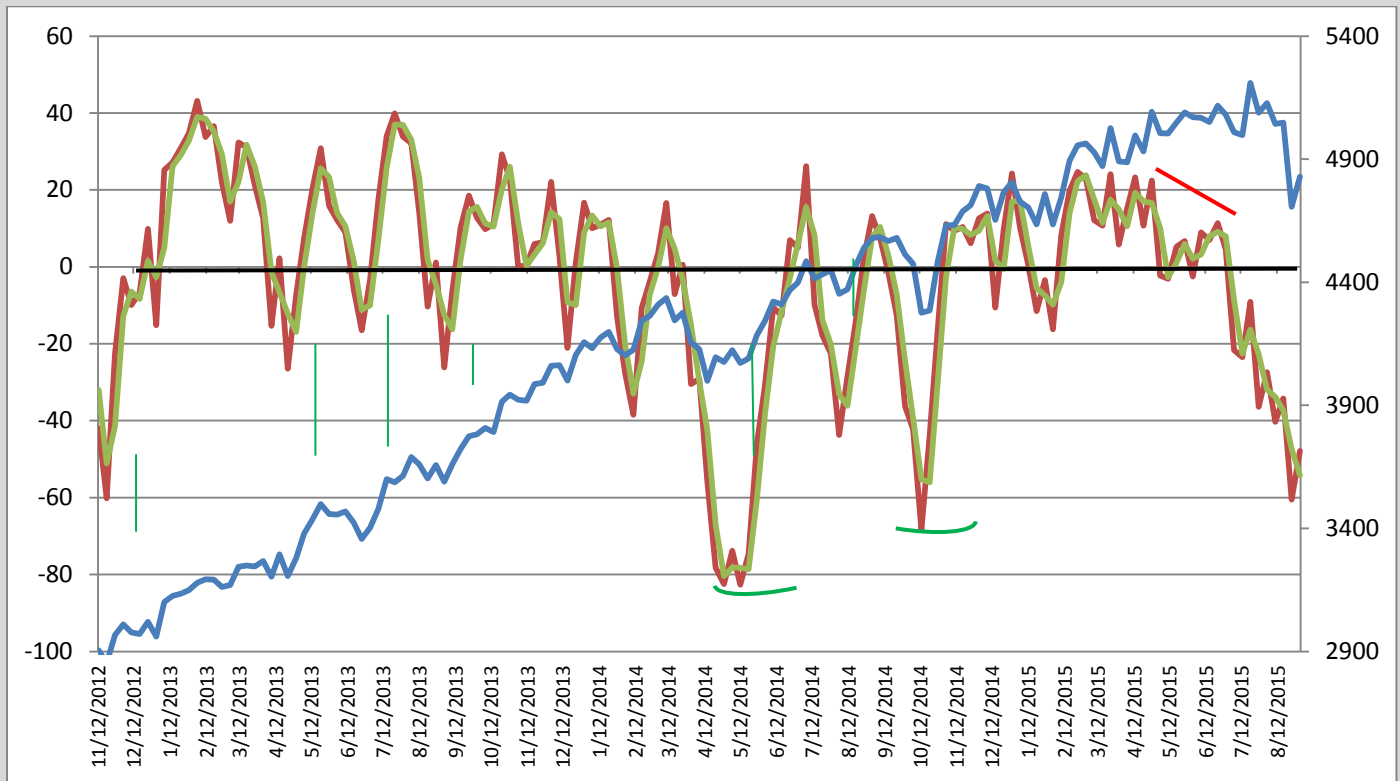
1. The NYSE is polluted with non operating companies (closed end funds and preferred stocks)
2. Nasdaq constituents represent a good cross section of large, mid and small caps.

The reality is that the Nasdaq's small cap representation provides an excellent barometer of investors attitude toward risk. Small caps are "riskier" as a result of volatility, size (float) and financial constraints in many cases. Consequently Nasdaq advance decline indicators can provide an excellent assessment of "risk on" and "risk off".

Traders will point out that the advance decline line moves to slow. The weekly Nasdaq advance decline oscillator, originally created by Sherman and Marion McClellan, measures acceleration and deceleration in the relationship of advancing versus declining stocks and is designed to capture short term inflection points in this relationship.

The chart below illustrates this indicator. As you can see peaks in the indicator tend to precede short term declines in the Nasdaq while a bottom in the indicator tends to precede short term bottoms. Needless to say some of the indicator peaks did not result in a meaningful decline in the price index. Interpretation and discretion can be exercised. A logical application? The indicator signals a buy when it turns up from an oversold level, a hold as long as the indicator is above the 0 level and a sell when the indicator crosses below the zero level. Anyhow you can see the recent divergence between the indicator (which made a lower high) as the Nasdaq price index moved to a new high. (divergences are interesting to look at yet they do not always produce the expected outcome in terms of index price action). For this reason divergences are not built into our systematic buy and sell models. Yet buy signals from oversold levels that are accompanied by Nasdaq trend measures are. Currently the indicator has reached an oversold level however has yet to turn up.

### Nasdaq advance decline oscillator



If the Nasdaq advance decline line moves to slow and the perhaps the oscillator moves to fast, the Summation Index, also created by the McClellans, perhaps provides the best of both worlds as it measures acceleration and deceleration in the advance decline relationship on an intermediate term basis.

## Advance Decline Summation Index

This indicator is a product of the oscillator. Breadth aficionados might appreciate this normalized version or Miekka adjusted calculation which enables the comparison of one market environment to another. James Miekka, a mathematician and physics teacher, was the creator of the "Hindenburg Omen" and also the creator of the normalized calculation of the McClellan Summation Index. Mr. Miekka published a weekly market newsletter, the Sudbury Bull and Bear report and managed his own investments. Unfortunately Mr. Miekka died unexpectedly in 2010 at the age of 56.

As you can see this indicator is responsive to important inflection points... more so than the advance decline line.... yet not as noisy as the advance decline oscillator. A multiple moving average approach can be applied. (buy signal occurs when short term moving averages cross above.... while a cross of a short term moving average below a longer term moving average can be utilized to signal a sell thereby allowing profits to run). Direction and level of the indicator are important. When the indicator and associated moving averages are trending higher and above the zero level (2013) higher this represents an acceleration of advancing versus declining stocks. (and a great time to be invested in small cap stocks not to mention equities in general). A turn down in the indicator lines represents a deceleration of advancing versus declining stocks (sellers gaining control over buyers). However when the indicator is above a certain level... 300 for example, historically it can be said that "usually nothing very bad happens to the market" as it represents a period of ample liquidity expressed through the relationship of buyers and sellers in this indicator. On the other hand a move below the zero level, particularly when the indicator is declining tends to be the riskiest periods to hold stocks. (the indicator signaled a sell when it moved below the zero level as of Monday July 13. Interestingly this occurred one week before the Nasdaq made a new all time high not to mention prior to the recent waterfall decline.

The divergence between the indicator and the Nasdaq price index in 2014 is even more apparent here. Essentially fewer and fewer stocks were participating in the Nasdaq's ascent. In early 2015 the indicator began to improve and once again the two were in sync. Recently the indicator barely moved above the zero level prior to the Nasdaq's new high and crossed below zero which signaled a sell.

