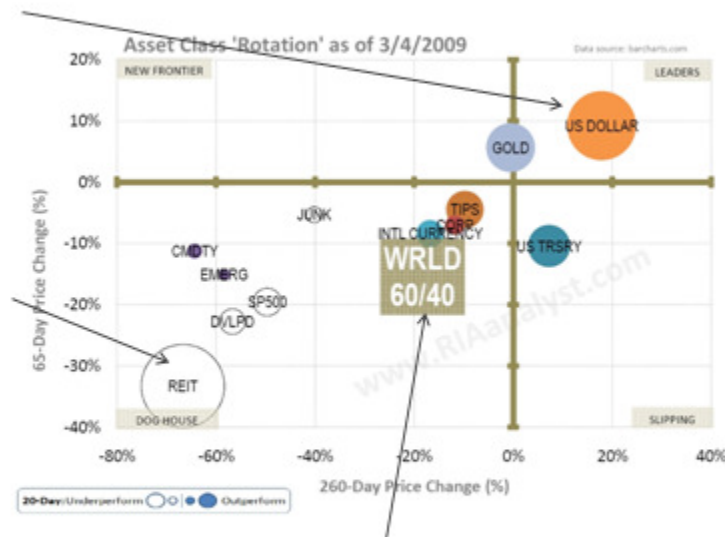


How to read our “Rotation” charts:

RIAAnalyst “rotation” charts provide an easy to read visual representation of market dynamics. At the center of the chart is the “benchmark” for whatever group is being displayed. The horizontal axis represents the percent price change of each ETF over the last 265 trading days (1 year). The vertical axis represent price performance over the past 65 days (1 quarter). Finally, the size and color of each “bubble” represents the ETF’s relative performance (vs. the benchmark) over the last 20 days (1 month). Large colored-in bubbles represent the greatest amount of overperformance, while large empty bubbles represent the greatest amount of underperformance. A data table is provided.

Large colored “bubbles” indicate large overperformance relative to the benchmark, over the last 20-days.

Large empty “bubbles” indicate large underperformance relative to the benchmark, over the last 20-days.

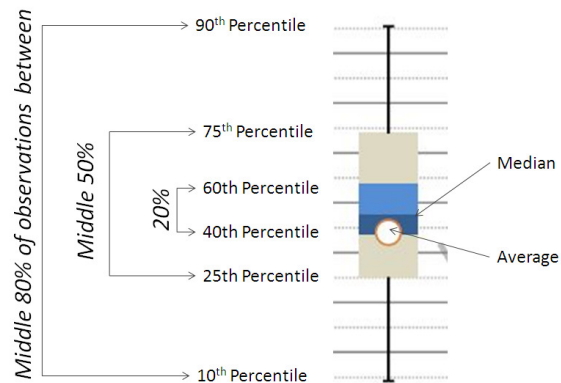


The “Benchmark” is in the center of the chart. The position of each “bubble” vs. this center point gives the ETF’s relative performance over the last year (260-day) and quarter (65day). The location of the benchmark relative to the “origin” (0,0), shows how well the group has done on an absolute basis.

This kind of chart is wonderful at depicting the market dynamics that have occurred over the last 12 months, and we suggest that as its primary purpose. How much it can tell us about the future and what actions you should be taking is debatable. Supposedly, assets will move around the chart in a clockwise fashion. However, progress around the way is by no means orderly and leaders and laggards can persist for very long or very short times. Therefore, it is very difficult to designate any area on the chart as a “buy” region and another as a “sell” region. How you as an investor or advisor should use this chart is up to you, your investment style and your beliefs about the market. Generally, if you believe that the current trends are going to continue for the foreseeable future, you may find some suitable long investment ideas in the top right of the chart. If you are more contrarian by nature, or are calling a “bottom” than you are more likely to find suitable long investment ideas in the bottom left.

How to read our “Box-and-Whisker” charts:

Box-and-whisker charts provide an easy-to-read summary of the statistics for a sample of observations, indicating not only central tendency (median and average) but also characteristics (width and skewness) of the dispersion around the center. In our box-and-whisker charts, typically the “whiskers” are used to depict the 10th and 90th percentile observations – between which 80% of all observations fall and outside of which only 20% of observations fall (10% on the low side, and 10% on the high side). The “box” and the breaks within the box represent the 25th, 40th, 50th (median), 60th and 75th percentiles. The dot overlaying the chart gives the average of all observations.



Notes:

You may be accustomed to the whiskers showing Min and Max observations, but in the type of data sets we generally study, there is often a number of “off the chart” outliers (high positives or high negatives). We therefore use the 10th and 90th percentiles as our outer bounds which gives a far more useful, and pretty chart. The goings on at the extremes can be indirectly inferred from the average and its relation to the median, so the data is not completely ignored. In example above, for instance, the average is below the mean, which suggest there are probably some large negative results in the sample, way outside the bounds of the chart.

You may also wonder which measure, average or median, is a better measure of central tendency. We believe in most circumstances the median is a much more reliable and useful measure of central tendency. Averages tend to be unduly influenced by outliers, negative observations and large-weighted index components (for weighted averages). Further, more often than not the median provides the more “conservative” estimate, so you will generally build a conservative bias into your analysis by sticking with the median, or better still the more conservative of the average and the median.

On occasion, certain data sets we look at have a tendency for the box to “straddle” the horizontal axis. This is most often the case with growth rates, for example. This requires us to use a slightly different chart configuration, but the idea is the same:

