

The Relative Value Sector model uses six technical analysis studies to calculate a relative value scoring system for each S&P industry sector versus the S&P 500. This model does not assess the likelihood of a sector going up or down. Instead, it guides whether a sector is likely to outperform or underperform the S&P 500. This report is just one of many tools that we use to assess our holdings and decide on potential trades. Just because this report may send a strong buy or sell signal, we may not take any action if it is not affirmed in the other research and models we use. Model results are based on the following technical indicators and in some cases, their short term trends:

- 20/50 day moving average crossover
- 50/20 day moving average crossover
- MACD (12ema/26ema)
- 14 day RSI
- 35 day Williams R%
- Deviations from 20, 50 and 200-day moving averages

Because this is a relative value model, we do not use the price of the sector ETF, as is typical in technical analysis, but instead the ratio of the appropriate sector ETF to the S&P 500 ETF SPY. The ETFs used in the model are as follows:

- Staples XLP
- Utilities XLU
- Health Care XLV
- Real Estate XLRE
- Materials XLB
- Industrials XLI
- Communications XLC
- Banking XLF
- Transportation XTN
- Energy XLE
- Discretionary XLY
- S&P 500 SPY

The model output is a standard deviation, or sigma, based on daily pricing data from the last 200 days. A positive sigma implies that the sector is overbought, and a negative sigma suggests it is oversold. In general, we prefer to see a sigma of at least +1 or -1 to deem a sector overbought or oversold. The signal is more powerful when it is greater or less than 2. In the example below, the blue dots mark the current sigma while the orange diamond shows the sigma from 35 days ago. By



graph below highlights the relative value proposition we hope to expose in this analysis. Those sectors that currently have higher sigmas also have had a positive 20-day excess return over the S&P 500. The opposite mainly holds for lower Sigma scores.

