



## **Alternative News Sentiment Data is a Competitive Portfolio Factor**

### **Use Case**

Cirrus' quantitative modeling identifies stocks that are likely to outperform based on fundamental variables such as growth, earnings expectations and valuations. Specifically, four stock selection pillars comprise the various Cirrus models, with the Capital Appreciation model allocating more exposure to Price and Business Momentum, and placing less emphasis on the Valuation and Quality pillars. Cirrus tested Stocksnips Big Data AI based News Sentiment to take the modeling one step further to improve Alpha generation.

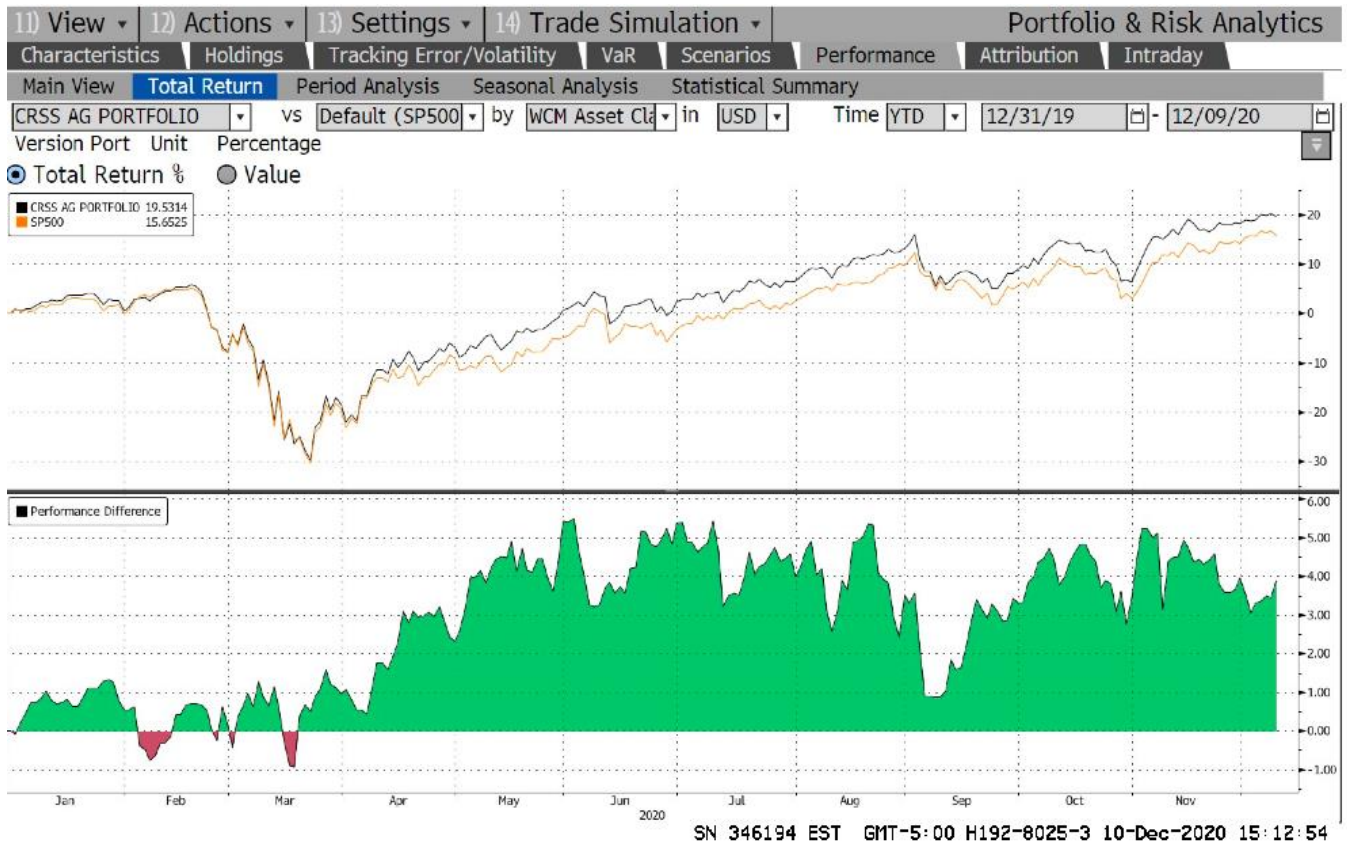
### **Portfolio Construction using News Sentiment as an Alternative Factor**

**The investment objective of this portfolio is to provide long-term capital appreciation.**

The portfolio seeks to select US Large and Mid-Cap equities that are accompanied by accelerating growth, rising earnings expectations, constructive valuations and favorable News Sentiment signal. The portfolio is actively managed with the goal of selecting the best investment opportunities while limiting volatility. The portfolio takes Cirrus' quantitative modeling one step further by combining with the alpha generating ability of AI/Big data on sentiment. Stocksnips leverages advanced Natural Language and Machine Learning algorithms to transform unstructured textual data to quantified real-time sentiment signal using news articles from established sources and asserts the sentiment of each financially "oriented" sentence within an article. These snippet level assertions are aggregated at the ticker level and is a measure of investor sentiment. Removal or reduction of a position in the portfolio is considered when any of the selection criteria deteriorates.

### **Portfolio Model Performance**

The chart below shows the index price for the US Equity Capital Appreciation Portfolio (Blue line) for the period December 31, 2019 – December 9, 2020 as calculated by Bloomberg. The model portfolio is rebalanced monthly based on the ranking of the factors Growth, Value, Quality and News Sentiment. The Model Portfolio (Blue Line) has outperformed the S&P 500 index (Orange line) for the full period shown.



### About Cirrus Research

Cirrus Research, LLC is an independent research firm dedicated to delivering innovative analysis and insights into global Mid, Small and Micro Cap investing to Institutional Investors, Mutual Fund Companies, Hedge Funds, and Pensions Funds. Satya Pradhuman, a recognized leader in Small Cap research, founded the firm in 2007. In 1994, Satya created Merrill Lynch Small Cap Research, applying a top-down macro-economic approach with a bottom-up stock selection methodology to the Small and Mid-Cap arena. Satya's highly regarded work was ranked by Institutional Investor Magazine for 11 straight years.

### About Stocksnips

Stocksnips Inc. is a Pittsburgh based company founded by computer and data scientists. Our vision is to provide easy access to stock market news sentiment analysis to investors. Understanding market sentiment trends can provide an edge and our aim is to provide high quality alternative data that can be easily integrated with traditional data sources.

## Portfolio Highlights (as of September 30, 2020)

### Sector Distribution

Cirrus Sector	% of Portfolio
Energy	3.25%
Materials	2.72%
Industrials	5.44%
Transports	1.56%
Consumer Discretionary	10.30%
Consumer Staples	7.41%
Consumer Services	4.75%
Health Care	13.04%
Financials	10.90%
Real Estate	2.08%
Technology	29.31%
Business Services	3.61%
Telecom	2.85%
Utilities	2.79%

### Portfolio Facts

Characteristics	
Number of holdings	60
Largest Market Cap (mn)*	\$2,007,832.70
Smallest Market Cap (mn) <sup>‡</sup>	\$5,562.30
Average Market Cap (mn) <sup>‡</sup>	\$91,016.69

Fundamentals	
Proj. LT Growth*	11.4%
ROE*	33.5%
Dividend Yield*	2.2%
Forward P/E*	17.55
Beta*	0.85

- **Gain at a Reasonable Price** – The portfolio seeks to generate superior performance and reduce volatility compared to a S & P 500 benchmark. Individual stock exposures can be adjusted to take advantage of market rotations.
- **Fundamentals-based Multi-factor Approach** – The portfolio utilizes one of the seven Cirrus Active Blends, which are quantitative multi-factor models constructed based on the premise that combining exceptional variables with a valuation framework adds value. This approach mimics fundamental managers' approach to stock picking as they meet management, sample the product, look at the competitive space and ultimately price the asset. By using data, one can mimic this approach using forecasts for growth.
- **Enhanced Performance with Big Data Sentiment** – BDS can generate superior results compared to standard relative strength models. The Price Momentum pillar in the Cirrus Aggressive Growth model is replaced with the StockSnips BDS signal to produce the portfolio.