Alexandria Technology Research

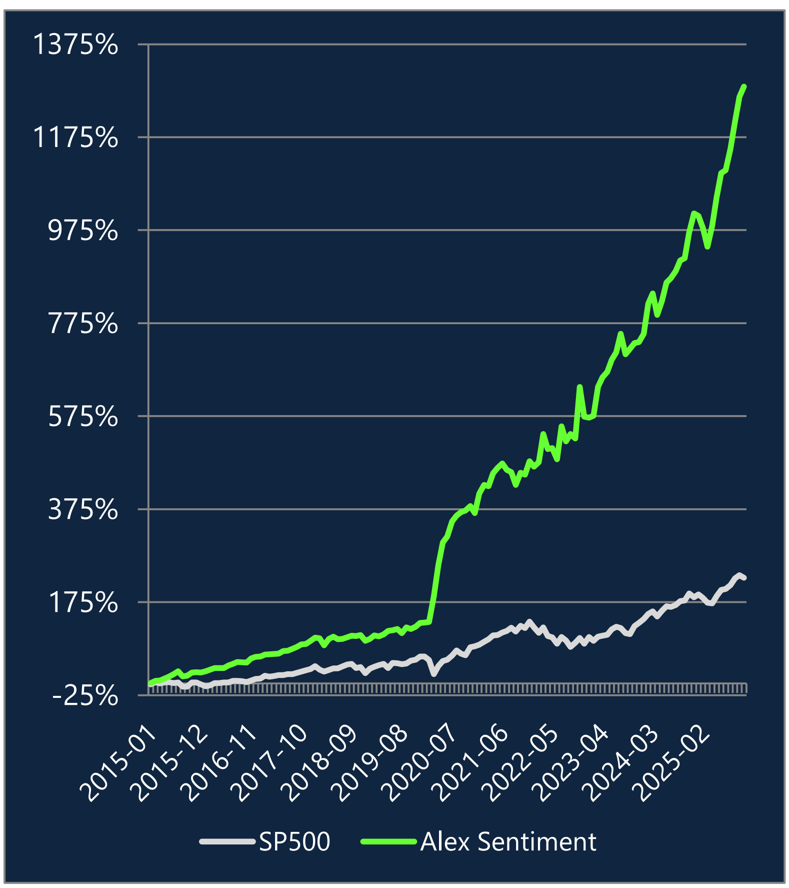
Forecasting Index Futures with Macroeconomic Sentiment

Alexandria's global macroeconomic sentiment data is derived from Dow Jones news articles in real time. Dow Jones produces on average over 25,000 articles per month on topics relating to the US economy, giving us a large corpus of information to derive trading signals for strategies ranging from intra daily to longer horizons.

Each article is classified for entities, topics, as well as a probabilistic distribution for the sentiment of each article in relation to the corresponding entity and topic. Each article is classified different macroeconomic events such as Trade Balance, Inflation, Discount Rates, Employment, etc.

Out of Sample Simulation Results

Our in-sample period creates daily sentiment scores for each topic for country USA. The daily topic sentiment values (X variables) are regressed against the daily S&P 500 futures forward return (Y variable) using Elastic Net as our regression technique. The in-sample period is a rolling 15 year window where we re-estimate values each year. The out of sample period achieves a Sharpe Ratio of **1.60**.



Year	S&P 500	PnL
2015	-2.21%	23.88%
2016	12.18%	27.25%
2017	19.40%	21.46%
2018	-6.89%	-0.02%
2019	29.79%	20.33%
2020	13.59%	102.49%
2021	29.61%	23.88%
2022	-20.27%	16.65%
2023	24.02%	23.74%
2024	23.74%	33.19%
2025	14.81%	24.60%
Annual Return	11.05%	26.50%
Std Dev	16.02%	16.52%
Sharpe	0.69	**1.60**
Monthly Hit Rate	65.35%	75.59%
Daily Hit Rate	54.15%	55.95%

For more information on this research, contact us at requests@alexandriatechnology.com.