

Smart Data Feed - Pre-Earnings Long Model

Analysis Period 01/01/13 - 01/29/19

Report Generated 01/29/19

About Lucena's Smart Data Feed

Lucena's Smart Data Feed is a simple and cohesive daily output file consisting of ranking, confidence scores and signal-strength values derived from one or more datasets. Signals are predicated on machine-learning multi-factor models customizable to a specific asset universe and investment objective. The Smart Data Feed is delivered daily in an accessible and actionable format, easily incorporated into an investment decision process.

About the Wall Street Horizon Pre-Earnings Long Model

Using Lucena's Event Study Classification Technology, the model uses factors to identify equities most likely to outperform the S&P 500 within a one month time horizon. The Event Scan is run daily to classify and rank constituents based on the underlying model. The goals of the model are to outperform the benchmark (S&P 500) with low volatility while maximizing Sharpe ratio.

Backtest Based on Wall Street Horizon Pre-Earnings Long Model

Using the underlying model we have simulated a backtest by which positions are identified and entered daily - equally allocated. Positions are held for 42 days or until they hit their stop loss condition. The benchmark for the backtest is the S&P 500. For a full backtest performance report click [here](#).



The Model

The model consists of four distinct features, two of which are predicated on Wall Street Horizon's Earnings Date Data and Lucena's technical and fundamental smart factors.

Earnings Date Restatement

Identifies when companies change their previously published earnings date.

Analyst Consensus Sentiment

When analysts, on average, indicate buy to strong buy recommendations.

Net Income to Total Asset Ratio

When companies' Net Income and Total Asset ratios fall within a predetermined range.

Trailing Twelve Month Sharpe Ratio

When companies' trailing twelve month Sharpe ratio falls within a predetermined range.

Relative Return 65.64% Sharpe Ratio 1.27

Beta 0.48 Volatility 0.77%

File Elements

1	2	3	4	5	6	7	8	9	10	11	12
Lucena Asset ID	Symbol	Date	Signal	Lucena Score	Rank	Rank Percentile	Probability	Metric Data Points	Out of Sample	Status Code	Ingestion Date
140623	XOM	6/18/19	1	99.75	1	100	0.88	63	1	0	6/18/19
143809	MU	6/18/19	1	95.54	2	95.78	0.05	63	1	0	6/18/19
134486	STZ	6/18/19	1	86.07	3	86.29	0.09	63	1	0	6/18/19
133566	GOOG	6/18/19	1	83.17	4	83.38	0.0020	63	1	0	6/18/19
143253	CBS	6/18/19	1	78.71	5	78.90	0.39	63	1	0	6/18/19
2022630	S	6/18/19	1	74.18	6	74.37	0.94	63	1	0	6/18/19
126039	MMM	6/18/19	1	73.61	7	73.80	0.25	63	1	0	6/18/19
190869	BAC	6/18/19	1	70.18	8	70.36	0.47	63	1	0	6/18/19
134833	GRPN	6/18/19	1	69.67	9	69.84	0.19	63	1	0	6/18/19

- 1 Lucena Asset ID** - A unique identifier created by Lucena to track a tradable asset across time.
- 2 Symbol** - The most recent tradable ticker for an asset at present time. For tickers whose asset is no longer tradable, the year and month will be appended, (eg. ABCD - YYYY-MM)
- 3 Date** - The first date upon market open for which a data point is usable.
- 4 Signal** - For **classifier-type** models, Signal delivers either a [-1,0,1] which correspond to [Short (sell), do nothing, Long (buy)] respectively. For **regression-type** models, Signal delivers an integer based on a given target. This target could be a future price return, KPI, or custom uploaded value.
- 5 Lucena Score** - The Lucena Score is a standardized metric between 0 and 100 for evaluating the value and confidence of a data point per symbol and date. It considers historical success, model confidence, and statistical stability in order to provide a consistent method for applying data. Low scores have lower confidence and value, high scores have higher confidence and value.
- 6 Rank** - The daily rank (from 1 to n) of a Lucena Score where "1" corresponds to the highest score and "n" to the lowest score.
- 7 Rank Percentile** - Rank Percentile is a normalized version of rank from 0 to 1 where 1 corresponds to a higher Lucena Score.
- 8 Probability** - For **classifier-type** models, the statistical confidence of the predicted buy or sell signal (-1,1). For **regression-type** models this field will be blank.
- 9 Metric Data Points** - The number of historical values the calculated metrics for a data point are based on.
- 10 Out of Sample** - Indicates when the underlying model is calculating a value for a date symbol it has never been shown before. A "0" indicates in-sample, a "1" indicates out-of-sample.
- 11 Status Code** - A code representing potential anomalies that the user may consider when evaluating a data point. The status code is the sum of all active errors. Potential errors and their corresponding codes are listed below.
 - + 1 - Missing Data
 - + 2 - Insufficient History for Stats
 - + 4 - No Model
 - + 8 - Restated Data
 - + 16 - Unmapped Symbolology
- 12 Ingestion Date** - For model generated values, Ingestion Date refers to the date the model was created. For raw data, Ingestion Date refers to the date that Lucena received the data from the data provider.

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