**End of Month**

**Calendar Date**

**PERMNO**: Unique CRSP (data provider) identifier for a security issue (common stock).

**GVKEY**: Unique Compustat (data provider) identifier for a company.

**Point-in-time CUSIP**: Historical CUSIP identifier for a security

**Point-in-time Ticker**: Historical symbol for a primary security

**Point-in-time Name**: Historical company name linked to a primary security

**Last Known CUSIP**: The latest identifier for a primary security

**Last Known Ticker**: The latest symbol for a primary security

**Last Known Name**: The latest company name linked to a primary security

**One-Week, One-Month, Three-Month and Nine-Month Price Trends**: The average daily returns measured from 5, 21, 63 and 189 days ago respectively excluding the latest trading day.

**Nine-Month Daily Return Skewness** measures how the daily return distribution is skewed one way or the other. Investors are generally willing to accept lower expected returns to score a few sizable gains. High positive skewness indicates the stock has done poorly on most days of the past nine-months, other than a handful with big returns.

**Nine-Month Share of Days Outperforming** measures consistency of price trend. It is the share of the last 189 trading days (excluding the latest one) during which the stock outperformed.

**Share Turnover and Its Monthly Change:** Total trading volume normalized by total shares outstanding over the past 189 trading days.

**The Stochastic Oscillator:** It shows the latest closing price in relation to the trading range of the past 14 days. When the oscillator goes above or below certain trading range can be interpreted to be extreme.

**The Relative Strength Index (RSI)**: It examines price strength by comparing upward and downward daily movements. The principle is that when there's a high proportion of daily movement in one direction it suggests an extreme, prices are likely to reverse.

**Bollinger Bands:** It’s evolved from the concept of trading bands, and can be used to measure the relative highness or lowness of price. If the most recent closing breaches this trading range, it could be buying or selling signal. It also capitalizes on price reversal.

**MACD:** It stands for Moving Average Convergence / Divergence: It examines short-term trend have been breaching long-term trend. Originally MACD is a trend following indicator designed to identify trend changes. However, MACD itself has been ineffective when individual stock’s MACD is compared with others in cross-section.

**Technical Indicator**: An optimal combination of the four factors in the above, RSI, Stochastic Oscillator, MACD, and Bollinger Band.

**Earnings Revisions:** The change in forward-one year earnings estimates by sell-side analysts

**Smoothed Earnings Revisions:** The revisions exponentially smoothed on a trailing three-month basis

**Estimate Dispersion:** It’s the coefficient of variation of earnings forecasts. It measures the degree of consensus among analysts following the stock.

**Share of Estimates Rising:** It’s calculated by counting all the positive estimate changes and scaling by the total number of estimates for a stock.

**Three-Month Smoothed Dollar Volume** means standardized average dollar volume over the past three-months. The volume counting difference between NASDAQ and NYSE is adjusted.

**Arbitrage Risk and Its Monthly Change:** Itmeasures short-term, stock specific unsystematic risk which cannot be explained by beta. It is the variance of the residual term in the CAPM model based on daily return series.

**Short Pressure and Its Monthly Change**: It is a securities lending metric that measures the value of stock on loan as a share of the value that is available to lend. Elevated short pressure has been a negative signal for future performance.

**Media Sentiment Indicator**: It combines analyses of news and earnings reports from traditional sources and social media, drawing upon data from RavenPack Analytics and Thomson Reuters’ MarketPsych service.

**Sector ETF Flows-to-Market Capitalization**: It captures the direct flows into underlying stocks due to share creation/destruction of relevant sector ETFs. Large inflows into sector ETFs signal trouble ahead as do high turnovers.

**Sector ETF Equivalent Volume**: It represents the implied impact from trading activities in the secondary market of those sector ETFs.

**Three-, Six-, Nine- and Twelve-Month Downside Risk** is the volatility of daily returns measured over the past 3, 6, 9 and 12 months only when they’re down.

**Interaction of Supernovas and Nine-Month Price Trend** measures the combined effect of the five best days of returns over the last quarter with price trend. Isolated pops quickly disappear and succumb to poor longer-term price trends.

**Interaction of Earnings Growth Stability and Arbitrage Risk** combines the standard deviation of YOY operating earnings growth over the past twenty quarters with arbitrage risk, which captures a stock’s idiosyncratic volatility after accounting for its beta. Companies with volatile earnings involved in a dispute usually fare poorly.