

# Alpha Signals

## A global library of stock-selection alpha signals

### Fundamental Models and Factors

#### Alpha Factor Library

Over 600 global factors with 20+ years of history created using Compustat and CIQ Fundamental Data among others.

- Analyst Expectations
- Capital Efficiency
- Earnings Quality
- Historical Growth
- Macroeconomic
- Price Momentum
- Valuation
- Volatility
- Size

### Specialty Models and Factors

#### Bond to Equity Factors

Equity metrics created utilizing proprietary S&P Bond Pricing Data and point in time equity mapping algorithm. Quantitative measures of yields, curve shifts, tilts, and twists, and bond price movements.

#### Credit Risk Factors

Data back to 2005

Proprietary measures of credit risk and momentum using our CDS spread pricing data.

#### Cybersecurity Factors

Data back to 2014

A suite of 35 factors derived from BitSight Security Ratings that quantify cybersecurity risks to enhance stock and portfolio risk management.

#### Dividend Forecast Factors

Data back to 2011

A suite of eight factors using forecasted dividends from our Dividend forecast dataset. Factors include forecasted yield, growth and payout ratios.

#### ESG Factors

Data back to 2003

ESG scores sourced from ASSET4, measuring economic, environmental, social, and governance. 23 factors and composites based on underlying 250 key performance indicators related to ESG.

#### Style Models

Global models covering popular investment themes by region with 20+ years of data:

- Deep Value
- Earnings Momentum
- Price Momentum
- Relative Value
- GARP Analyst
- Growth Analyst
- Historical Growth
- Small Cap

#### Point-in-Time Institutional Ownership Factors

Data back to 2005

Quantitative equity signals capturing important information on institutional ownership to empower alpha generation. 17 factors from holdings and trading activity using our “best-of-breed” Point-in-Time Equity Ownership dataset. The factors capture ownership concentration, changes in holdings, institutional and hedge fund holdings and liquidity flow ratios.

#### Retail Trade Flow

Best in class proprietary dataset that captures retail trading activity on equities and ETFs from actual trades. Trade data available as notional and nominal values categorized as buy, sell and short sell activity.

#### Sector Rotation Model

Data back to 1999

An innovative multi-factor model that translates economic forecasts, market sentiment, and quantitative factors into a systematic attractiveness score of sector groups. Pairs our Sector Purchasing Managers' Index (PMI) Survey data and proprietary CDS, securities lending and ETF sentiment indicators with momentum and fundamental factors.

#### Shipping Factors

Data back to 2007

Stock selection signals created using our proprietary Maritime and Trade Bill of Lading dataset that provides information on company shipments. 48 factors

constructed from import and export data for US ports for global companies. Proprietary clustering and subsidiary mapping algorithm for high quality data at equity level. Quantitative factors capture themes that include shipping trends, revenue impact, sector/industry relative shipping activities.

### **Short Sentiment Factor Suite**

Data back to 2007

A suite of timely, global, short sentiment factors covering 3MM+ intraday transactions, spanning \$12 trillion of securities in the lending programs of over 20,000 institutional funds globally—captures ~90% of the securities lending market in developed markets.

### **Short Squeeze Model**

Data back to 2011

A multifactor model designed to predict short squeeze events. The model utilizes capital constraint (short position PNL) indicators based on transaction-level securities loan data with event indicators to predict squeezes and generate excess alpha. Factors created using transaction level data are available globally.

### **Social Media Indicators**

Data back to 2011

A suite of 22 stock sentiment indicators used to gauge investor outlook on firms and identify potential buy and sell candidates. Social media indicators capture timely information gleaned from Twitter posts such as Tweet sentiment, Tweet Volume, Relative Value, Changing Sentiment, and Dispersion.

## **Industry Models and Factors**

### **Airlines Factor Suite**

Data back to 2001

Innovative industry factor measures analyzing the success of business operations covering revenue, expense, margin, capacity, Available Seat Miles, Revenue Passenger Miles and Size of Fleet.

### **Automotive Signals**

Data back to 2008

Proprietary industry-specific signals designed to predict global automotive stock returns. Systematically score stocks based on a number of metrics specific to the automobile industry. Metrics include stock-specific factors that quantify a company's sales growth, production trends, market share, production utilization and exposure to electric vehicles.

### **Technology Model**

Data back to 1990

Addresses complex dynamics of technology sector w/industry-level model construction reflecting key tech industry attributes, combined w/a cross-sectional overlay to highlight more general market trends.

### **Bank & Thrift Model**

Data back to 1990

Model of the US Bank & Thrift Industry utilizing FDIC data and detailed specialty measures including asset quality, loan growth, and reserves.

### **Insurance Model**

Data back to 1996

A model to enhance stock selection using insurance industry specific factors.

### **Retail Suite**

Data back to 1985

A suite of factors designed to generate excess return employing general signals alongside key industry specific measures including same store sales, store growth and operating strength, among others.

### **Oil & Gas Model**

Data back to 2000

A systematic model employing industry-specific operating metric details such as production numbers and reserve amounts (e.g., Production Growth and Reserve-Replacement Ratio).

### **Semiconductor Model**

Data back to 2005

An operating metric based factor model for the Semiconductor industry designed to generate additional alpha with greater consistency in positive return spreads.

### **Equity REIT Model**

Data back to 1994

US REIT model utilizing proprietary data to enhance investment returns using Equity REIT's.

### **SNL Derived Industry Factors**

Industry focused equities factors on industries such as Hospitals, Managed Healthcare, Homebuilders, Hotels and Gambling, Gold Mining, Utilities, Pharma and Biotech, Restaurants. Data sourced from proprietary SNL Financials dataset.