# Quant Factor Library

Detect investment themes across global equity markets, incorporate ideas into your portfolio construction process, and transform raw data into actionable intelligence.



FactSet offers exclusive, consolidated factors to enhance your portfolio strategies, reporting, and research capabilities.

#### STREAMLINE YOUR FACTOR INVESTING PROCESS USING UNIQUE CONTENT AND ADVANCED ANALYTICS

FactSet's Quant Factor Library provides cost-effective access to over 2,400 pre-calculated global equity data items rooted in decades of financial theory. Benefit from trusted technology that delivers data for 70,000+ securities in 127 countries and across more than 200 exchanges. Access raw values, normalized exposures, and composite scores for traditional factor groups such as Value and Quality and evaluate them against newer characteristics such as Insider Activity, Corporate Governance, and Crowding.

## ENHANCE RESEARCH AND REPORTING WITH AN EXPANSIVE, PRE-CLEANSED CONTENT COLLECTION

With more than 40 datasets (including two dozen exclusive sets), FactSet is an industry leader in acquiring, integrating, and managing financial data. Our content gives you the power to monitor the global markets, research companies, and gain industry-level insight with comprehensive factors that include financials, estimates, debt, ownership information, and more.

FactSet has a variety of processes for cleaning and validating factor values—including raw data, rankings, and z-scores—to ensure reliable, accurate data. Leverage our calculation

engines to eliminate look-ahead bias and determine what is working well across global equity markets. Point-in-time or dynamically lagged data is available back to 1986 and stored daily for consistency and timeliness.

### CREATE FINANCIAL MODELS AND OPTIMIZE YOUR STOCK SELECTION STRATEGY

FactSet has developed a variety of robust data solutions for direct integration into your workflows, from research and portfolio construction all the way to your analytics and evaluation processes. Seamlessly integrate factor values into FactSet's industry-leading portfolio analytics suite or leverage its Portfolio Simulation solution to build optimized, factoraware portfolios over time. Leverage FactSet's UI-based Alpha Testing or FactSet Programmatic Environment (a code-based Quantitative Product Suite extension) to research factors and identify new sources of alpha through advanced multi-factor signal generation.

FactSet's Quant Factor Library is available through the above on-platform solutions, and clients can also access this powerful content set off platform via an interactive API or a production-friendly bulk file delivery API.

#### ADD IMMEDIATE VALUE THROUGH CONSOLIDATED FACTOR-BASED SOLUTIONS

Raw Factor Values Advanced Factor Analytics Global Security Coverage and Intraday Updates Normalized Factor Exposures Dynamic Alpha Signals Unbiased Views of Historical Performance Composite Factor Scores Machine Learning Predictions Transparent Calculations and Definitions

#### CLASSIFICATION FACTORS AND REFERENCE DATA

- Asset Data: Easily input security-level metadata into your quantitative research process. Common metrics used include Days Since Report, Days to Report, ADR Flag, and Minimum Lot Size. Integrate variables from FactSet Reference, FactSet Fundamentals, and FactSet Estimates databases to impose portfolio constraints and access general reference data.
  - **Country:** Evaluate securities based on the countries in which they have the highest exposure. Analyze company-level exposures across various countries and measure how concentrated a firm's business is within their countries of operation. Metrics are derived from FactSet Reference and FactSet Geographic Revenue Exposure (GeoRev) databases and include Country Exposure, Country of Incorporation, and Country of Risk.

Industry: Classify securities based on the industries in which they generate the majority of their revenues. Incorporate variables from the FactSet Revere Business and Industry Classification System (RBICS) database to measure how concentrated a firm's business is within the industries they operate and across various sub-sectors. Common metrics include Industry

Classifications, Industry Exposures, and

Industry Concentration.

Size: Assess how large or small a company is relative to industry peers. Create size buckets and clarify the systematic portion of company returns using variables from FactSet Prices, FactSet RBICS, FactSet Fundamentals, and FactSet Estimates. Common metrics include Size Classification, Enterprise Value, and Market Share.

#### MARKET FACTORS



Liquidity: Assess how investible a security is, as well as the potential market impact of a trade using signals built off pricing and volume data from FactSet Prices. Integrate factors as components into your alpha models to evaluate systematic risk or input them into your portfolio construction models to dictate how much of an asset can be bought or sold based on liquidity levels. Common metrics include Average Dollars Traded, Share Turnover, and Bid Ask Spread.



Market Sensitivity: Clarify the common variations in stock returns attributable to the performance of their local market indices. Leverage regressions performed between security-level and market-index returns across different return horizons and methodologies. Metrics are derived from FactSet Prices and include Beta R-Squared, Up Market Beta, and Down Market Beta. Momentum: Analyze the historical momentum of a security and uncover how each underlying data item, calculation, and horizon can be meaningful in different situations. Metrics are derived from FactSet Prices and include 52W Position, Return Momentum, and Velocity.



**Technical:** Forecast the direction of future price movements based on historical market data and leverage heuristic or pattern-based signals from FactSet Prices. Common metrics include Average True Range, Ulcer Performance Index, and Money Flow Volume.

**Volatility:** Measure the uncertainty in asset price movements with indicators from the FactSet Prices database. Capture various forms of uncertainty by employing statistical calculations on security performance data. Common metrics include Return Volatility, Semivariance, and Turbulence.

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#### CORE FUNDAMENTAL FACTORS



**Efficiency:** Leverage core financial data to determine how effectively a company uses its assets, collects payments, and operates its business. Most variables are measured as turnover ratios and include changes over time to provide transparency into the efficiency of each business process. Metrics are derived from FactSet Fundamentals and FactSet Estimates and include Asset Turnover, Receivables Turnover, and Cash Conversion Cycle.



**Growth:** Measure a company's ability to grow faster than its peers. Compare the future expected growth of a company with its historical growth and view growth rates adjusted for stability. Integrate variables from FactSet RBICS, FactSet Fundamentals, and FactSet Estimates to analyze growth rates over multiple horizons, including Market Share, Sales, and EPS Growth.



**Management:** Gain insight into how management finances their business and the decisions they make that impact the core financial statements. These choices are reflected in changes to total debt or equity, the overall size of the balance sheet, and decisions around the accounting methods used. Metrics are derived from FactSet Fundamentals and FactSet Estimates and include Capital Expenditures (CAPEX) Growth, Equity Buyback Ratio, and Depreciation & Amortization Variability.



**Profitability:** Evaluate a company's ability to generate income relative to its revenue or balance sheet metrics. Identify lucrative businesses relative to their industry, region, and size profile. Metrics are derived from FactSet Fundamentals and FactSet Estimates and include Return on Assets, Return on Invested Capital Change, and Return on Total Equity.

**Quality:** Understand the overall financial health and quality of a company's business. Use historical data from FactSet Fundamentals to analyze balance sheet health, stability of earnings and profit margins, variability in cash flows, and trends that look beyond headline financial metrics. Common metrics include Cash Earnings Ratio Variability, Revenue Stability, and Accruals Ratios. Composite quality scores (i.e., the Piotroski F-Score, Beneish M-Score, and Altman Z-Score) and their underlying components are also available as individual metrics.



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**Solvency:** Measure a company's ability to meet their short- and long-term financial obligations and determine the degree of leverage employed to run their business. Incorporate financial ratios from FactSet Fundamentals and FactSet Estimates to quantify liability or debt obligation relative to earnings, cash flows, equities, or items from the asset side of the balance sheet. Common metrics include Current Ratio, Current Asset Liquidity, and Debt to Equity Change.

Value: Quickly determine how cheap or expensive a company is based on common security-level characteristics from FactSet Prices, FactSet Fundamentals, and FactSet Estimates. Apply factors as an intersection between other factors for a more customized analysis, such as finding the cheapest stocks among the highest quality companies. Common metrics include Earnings Yield, Book to Price, and Revenue to Enterprise Value.



#### ALTERNATIVE FACTORS

Analyst Sentiment: Analyze a security's outlook from the perspective of a sell-side research analyst. Leverage consensus estimates data from the FactSet Estimates database to analyze the directional change in estimate revisions for various financial statement items and time periods. Common metrics include Sales Estimate Revisions, Free Cash Flow Estimate Revisions, and Robust Estimate Revisions.



**Corporate Governance:** Identify companies with strong corporate governance. Analyze the profile of a company's management and board based on tenure, diversity, compensation incentives, and more factors from the FactSet People database. Common metrics include Management - Average Age, Board - Activist Member, and Executives - Average Bonus.

**Crowding:** Understand the degree to which investors own, purchase, or sell a security. View characteristics of each investor's profile and characterize crowding from passive, active, institutional, ETF, and hedge fund investors. Use metrics from FactSet Ownership, FactSet Prices, and FactSet Fundamentals to help identify potential effects of crowding, such as whether certain investor types are acquiring or divesting from a given security. Common metrics include Active Buyer Percent of Portfolio Change, ETF Days to Liquidate, and Hedge Fund Percent Outstanding. **ESG:** Get an unbiased real-time view of environmental, social, and governance (ESG) scores cleanly mapped to the SASB framework through the convergence of big data and artificial intelligence (AI). Metrics are derived from FactSet Truvalue Labs and include the Truvalue ESG Activity Signal, a combination of long-term ESG track records and investor attention.



**Insider Activity:** Measure the degree to which insiders own, purchase, or sell their company's stock. Analyze the sentiment of those with access to material non-public information or determine how the amount of insider ownership may impact management's key business decisions. Metrics are derived from FactSet Ownership and include Insider Percent Outstanding, Insider Number of Buys, and Insider Seller Position Change.

**INFORMATION ANALYSIS:** Perform analysis with a range of best-in-class tools in the FactSet Workstation and gain direct, endless access via comprehensive data feeds and APIs.



About FactSet: FactSet is a leading provider of financial information and analytic applications to investment professionals around the globe. To learn more about FactSet's Quant Factor Library, contact sales@factset.com or visit www.factset.com. Copyright © 2023 FactSet Research Systems Inc. All rights reserved. #20284/0423/FSM398