COGNITY® REAL-WORLD RISK MODELING

〉 Gain visibility into your portfolios and the market dynamics driving the behavior of your multi-asset class investments. Leverage a transparent modeling platform that understands the structure of financial asset distributions and adapts to all markets and market regimes.

Cognity empowers the buy side with analytical insight and actionable decision support.

State-of-the-Art Risk Modeling Platform

TRADITIONAL RISK AND PORTFOLIO MANAGERS

Cognity delivers a holistic risk framework integrated across factor modeling, risk measurement, and scenario analysis. Accurately estimating the probability and severity of tail events, Cognity enables risk managers to make better decisions. Portfolio managers can take a proactive position with forewarnings of structural market shifts.

HEDGE FUND MANAGERS AND ALLOCATORS

Cognity's fat-tailed framework identifies hot and safe investment spots, facilitating hedge construction, derivative overlays, and satellite portfolios. Cognity enables hedge fund managers, asset owners, and allocators with a risk-centric view of portfolio construction, helping them build better portfolios with higher risk-adjusted investment performance.

Multi-Model

Open, documented, and customizable model selection and configurations

- Fat-Tailed
- Normal
- Historical

Multi-Transparent

Consistent modeling of investments with varying transparency and frequencies

- Positions
- Exposures
- Returns

Multi-Asset Class

Works across all asset classes and broad instrument types

- Full Monte Carlo Repricing
- Extensive Data Partner Network

Multi-Liquidity

Consistent modeling of assets with vastly different liquidity characteristics

- Derivatives, funds, real assets, and private equity modeled in single patented framework

Understand the Anatomy of a Real-World Modeling Framework

PREDICTIVE AND RELIABLE

A real-world modeling framework must assume the existence of fat-tailed markets—those exhibiting extreme losses, coupled with market asymmetry, tail dependence, and critically, the evaporation of diversification during market stresses. This is at the core of FactSet's patented award-winning fat-tailed modeling framework.

ADAPTIVE

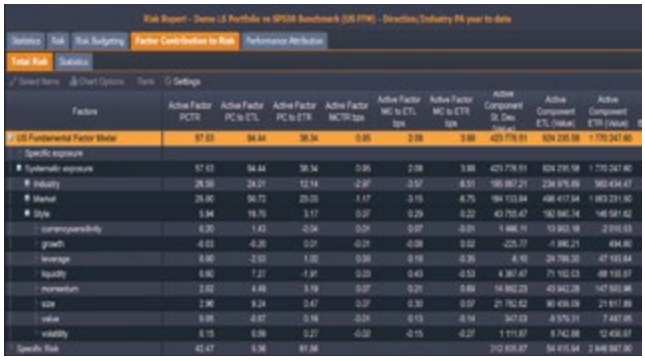
Properly reflecting market turbulence is essential, but real-world risk estimation must also recognize and adjust to all market regimes—calm "normal" conditions, up markets, bubbles, corrections, and transitions. Cognity's adaptive modeling framework ensures reliable market representative risk estimates that transition risk measurement into true risk management.

FLEXIBLE FACTOR MODELS

One size does not fit all. Multi-asset class portfolios require all types of factor models. Cognity eclipses standard risk analytics platforms that impose specific factor models for measuring risk. Cognity's open factor modeling environment applies the appropriate factor model type for any given asset class including:

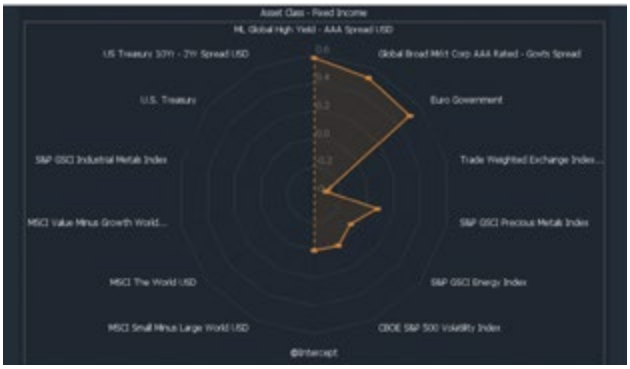
1. Fundamental Factor Models for Equities

- Pre-built global and geographic models
- Proprietary and third-party vendor models easily integrated
- Custom factors easily included



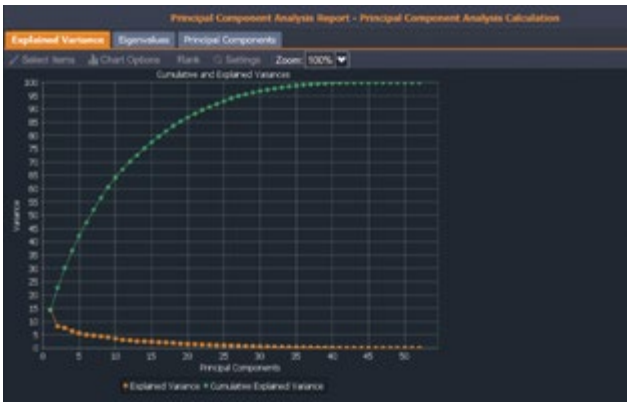
2. Economic Time Series Factor Models for Funds Including Private Equity, Real Estate, and Infrastructure

- Library of pre-defined template models
- Patent pending infilling and mixed data frequency aggregation seamlessly integrate private equity, real estate, and infrastructure funds
- Single- and multi-factor regression analytics with linear, non-linear, and lagged settings
- Automated stepwise factor selection reliably identifies systematic risk factor drivers
- Pre-packaged database of over 750 leading market factors and indices
- Direct input of custom factors and manager-provided exposures



3. Statistical PCA Models for Fixed Income, Combined with Full Monte Carlo Re-Pricing for Derivatives

- Discovers hidden factors
- Improves yield curves, spread curves, and implied volatility surfaces



INTRODUCE AN OPEN AND TRANSPARENT MODEL

Cognity is engineered as an open, multi-model platform that deploys a fully documented modeling framework and mandates the ability to view and configure every model setting and constraint. Cognity's flexibility ensures model transparency, validation, and customization capabilities.

Gain Comprehensive, Actionable Risk Reporting and Decision Support

Cognity fully aggregates and decomposes risk across multi-asset class portfolios regardless of the asset classes, instrument types, risk models, or frequency of the instruments. Cognity's powerful multi-asset class aggregation capabilities offer unparalleled reporting and results transparency:

- User-defined views of aggregated portfolio risk with drill-down into multi-level groupings across asset classes and positions
- Rollup and look-through reporting from a single enterprise view down through any user-defined sub-groups (e.g. asset class, instrument type, strategy, geography, etc.) and to the individual fund and position level
- Custom decomposition of systematic and specific components allows for easy identification of which positions concentrate or diversify risk

Cognity's fat-tailed multi-model architecture enables the most extensive reporting framework available with over 80 statistical measures for comparison across historical, normal, and multiple fat-tailed models:

STANDARD RISK MEASUREMENT

- Value at Risk (VaR)
- Incremental VaR
- Implied Return (Std Dev)
- Marginal Contribution to Risk (Std Dev)
- Percent Contribution to Risk (Std Dev)
- Percent Contribution to Return
- Factor Percentage Contribution to Risk (Std Dev)
- Factor Marginal Contribution to Risk (Std Dev)

FAT-TAILED RISK MEASUREMENT

- Expected Tail Loss (ETL)
- Expected Tail Return (ETR)
- Incremental ETL
- Incremental ETR
- Implied Return (ETL)
- Marginal Contribution to ETL
- Marginal Contribution to ETR
- Percent Contribution to ETL
- Percent Contribution to ETR
- Factor Percentage Contribution to ETL
- Factor Marginal Contribution to ETL