Predict future financial performance and maximize profitability using S+FinMetrics®

S+FinMetrics® is an advanced, analytic-rich module for modeling, analyzing, and visualizing financial market data in S-PLUS®. The module is designed to offer the most comprehensive, modern, and flexible analytic tool available for precise econometric modeling.

Unlike competitive packages, S+FinMetrics offers all of the essential analytics, from rolling regression and backtesting functions, to extreme value theory, to time series analysis, in one environment.

Andrew Clark
Senior research analyst
Lipper, A Reuters Company

Modern, Flexible Econometric Analysis

- Address data errors common in financial data sources with linear interpolation, cubic spline and other methods
- Better predictive analysis with time series aggregation and dis-aggregation capabilities
- Examine the unique statistical properties of time series data to predict future performance with statistical summary and test statistics
- Create sophisticated financial models with ease using the Generalized Method of Moments or the Efficient Method of Moments
- Explore your data using tests for normality, serial correlation, ARCH effects, unit root, co-integration and more
- Communicate your results efficiently and effectively with superior visualization techniques

Easily compute technical indicators and moving average operators:

- Popular indicators grouped under the categories of price, momentum, volatility, and volume are included
- Easily estimate models over rolling windows for back-testing performance and stability analysis

Essential functions for fixed income analysis included:

- Yield, conversion between spot rate, discount rate, forward rate, and yield curve estimation and interpolation.
- Estimation and simulation functions for two of the most popular classes of Affine Term Structure Models (ATSM), Vasicek and Cox-Ingersoll-Ross
- Simulate solutions to univariate and multivariate continuous time stochastic differential equations allowing for custom building of interest rate models.

Extreme value and statistical copula functionalities available:

- Excess-of-loss catastrophe modeling or general value-at-risk analysis
- Generalized Pareto distribution to exceed over thresholds and generalized extreme value distribution to block maxima
- 18 types of parametric copula classes are implemented for visualization, estimation, and simulation for modeling general bi-variate distributions, as might arise in the modeling of credit instrument defaults
S+FinMetrics and S-PLUS provide the most comprehensive set of flexible nonlinear models for predicting financial time series available.

- Three types of nonlinear regime switching time series models:
  - Threshold autoregressive
  - Smooth transition autoregressive
  - Markov Switching autoregressive models
- Plus the most popular tests of nonlinearity in financial data

**State Space Modeling**
- Uncover and predict latent information in financial markets with the most efficient implementation of Kalman filtering and smoothing algorithms for state space models
- Added power and flexibility with Markov regime switching of the state equation parameters

**Multifactor Modeling**
- Greater accuracy and reliability for managing portfolio performance and risk with statistical multifactor models

**Simulation-Based Econometrics**
- Estimate Semi-nonparametric models (SNP) and Efficient Method of Moments (EMM) for your most challenging dynamic nonlinear applications

**Rolling Estimate and Backtesting Strategies**
- Supports rolling estimation and backtesting strategies adopted by leading quantitative analysts

**S+FinMetrics Features**

**Time Series Tools**
- Complete suite of Date and Calendar Time Series Objects
- Aggregation and Disaggregation
- Missing Value Interpolation
- Technical Indicators
- Intra-day Moving Average

**Statistics**
- Statistical Summaries and Tests
- Extreme Value Theory
- Copula Modeling and Estimation

**Econometric Estimation**
- Generalized Method of Moments
- Efficient Method of Moments
- Linear and nonlinear SUR
- Vector Autoregressive Models (VARs)
- Bayesian VARs
- Vector Error Correction Models

**Complex Dynamic Models**
- Time series regression models
- Long memory models
- GARCH-type volatility models

**System Requirements**
S+FinMetrics 2.0 requires S-PLUS 7.0
Windows® Systems Requirements
- Windows XP Home
- Windows XP Professional
- Windows XP 2000
- Windows 2003 Server (32-bit)
SUN® Solaris® and Linux® System Requirements
- Solaris 2.8, 2.9 (SPARC 32-bit)
- Red Hat® Enterprise 3 (32-bit)

**About Insightful Corporation:**
Insightful Corporation (NASDAQ: IFUL) is a leading provider of predictive analytics and reporting solutions that provide companies the knowledge to act™. Insightful products allow companies to perform sophisticated statistical data analysis and data mining, and to create high-quality graphics from numeric and text data. Insightful consulting services provide specialized expertise and proven processes for the design, development and deployment of customized solutions.

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