FactSet Daily Global Equity Model

FactSet's Daily Global Equity Model is a cross-sectional linear multi-factor equity model designed to help investors improve their risk management, performance attribution, and portfolio construction framework.

MODEL OVERVIEW

This model consists of 215 factors that allow for a deep understanding of portfolio risk exposures to common factors in the global market. The FactSet Daily Global Equity Model enhances the structure of the FactSet Monthly Global Equity Model by working on a daily occurrence while capturing short-term mean-reverting return trends through the new style factor, Mean Reversal. Other improvements to the new risk model include modifications to parameters for enhanced responsiveness, Beta exposure estimation, and factor return covariance forecasting methodologies that assess the effects related to daily frequency data.

ASSET COVERAGE

The FactSet Daily Global Equity Model covers common equity stock as well as more exotic equity instruments including, depository receipts (DR, ADR, GDR, NVDR), preferred equities, closed-ended funds, and foreign shares.

RISK FACTORS

FactSet's Daily Global Equity Model covers 82 currencies and consists of a global market factor, 11 style factors, 69 industry factors, and 52 country (country group) factors.


Style: 11	Leverage	Growth	Long Momentum
	Liquidity	Beta	Earnings Yield
	Volatility	Dividend Yield	Book-to-Price
	Size	Mean Reversal	
Country and Country Groups: 52	Turkey, Mexico, Germany, Vietnam, Egypt, Malaysia, Hong Kong, Saudi Arabia, Finland, United Arab Emirates, Switzerland, Singapore, South Africa, Argentina, Sri Lanka, China, Canada, Brazil, South Korea, Israel, Pakistan, Italy, Thailand, Russia, Japan, Norway, Austria, Philippines, Kuwait, New Zealand, India, United States, Netherlands, Belgium, Poland, Australia, Sweden, Ireland, Portugal, Qatar, United Kingdom, Spain, Indonesia, Taiwan, Denmark, France, Eastern Europe ex. Poland Russia, Sub-Sahara ex. South Africa, Latin America ex. Argentina Brazil, Small Middle Eastern Markets, North Africa, Greece, Cyprus		

FACTSET

| Industry: 69	Health Care Providers & Services Mortgage Real Estate Investment Trusts (REITs) Auto Components Health Care Technology Specialty Retail Multi-Utilities Energy Equipment & Services Equity Real Estate Investment Trusts (REITs) Air Freight & Logistics Technology Hardware Storage & Peripherals Tobacco Marine Insurance IT Services Hotels Restaurants & Leisure Trading Companies & Distributors Media Life Sciences Tools & Services Beverages Road & Rail Communications Equipment Food & Staples Retailing Automobiles Gas Utilities Textiles Apparel & Luxury Goods Household Durables Building Products Independent Power and Renewable Electricity Producers Containers & Packaging Transportation Infrastructure Personal Products Pharmaceuticals Oil Gas & Consumable Fuels Professional Services	Real Estate Management & Development Industrial Conglomerates Food Products Semiconductors & Semiconductor Equipment Construction & Engineering Household Products Health Care Equipment & Supplies Thrifts & Mortgage Finance Banks Electric Utilities Software Machinery Metals & Mining Electrical Equipment Airlines Diversified Consumer Services Paper & Forest Products Multiline Retail Capital Markets Wireless Telecommunication Services Water Utilities Consumer Finance Diversified Financial Services Chemicals Aerospace & Defense Distributors Commercial Services & Supplies Biotechnology Leisure Products Electronic Equipment Instruments & Components Diversified Telecommunication Services Construction Materials Entertainment Interactive Media and Services
Currencies: 82	ARS, AUD, BDT, BGN, BHD, BMD, BRL, BWP, CAD, CHF, CLF, CLP, CNH, CNY, COP, CZK, DKK, EGP, EUR, GBP, GHS, HKD, HRK, HUF, IDR, ILS, INR, ISK, JMD, JOD, JPY, KES, KRW, KWD, KZT, LBP, LKR, LTR, LTL, LVL, MAD, MKD, MUR, MWK, MXN, MYR, NAD, NGN, NOK, NZD, OMR, PEN, PHP, PKR, PLN, QAR, RON, RSD, RUB, SAR, SEK, SGD, SKK, THB, TND, TRY, TWD, TZS, UAH, UGX, USD, UYU, VES, VND, XAF, XOF, ZAR, ZMK, ZMW	

SYNCHRONIZED DATA FOR FORECASTING PORTFOLIO SYSTEMATIC RISK

The FactSet Daily Global Equity Model uses corrections from Newey-West (with a two-day lag) to synchronize the data in the covariance estimator and Beta exposure. This approach adjusts for biases introduced by asynchronous data that appear when markets are in different time zones and close at different times.
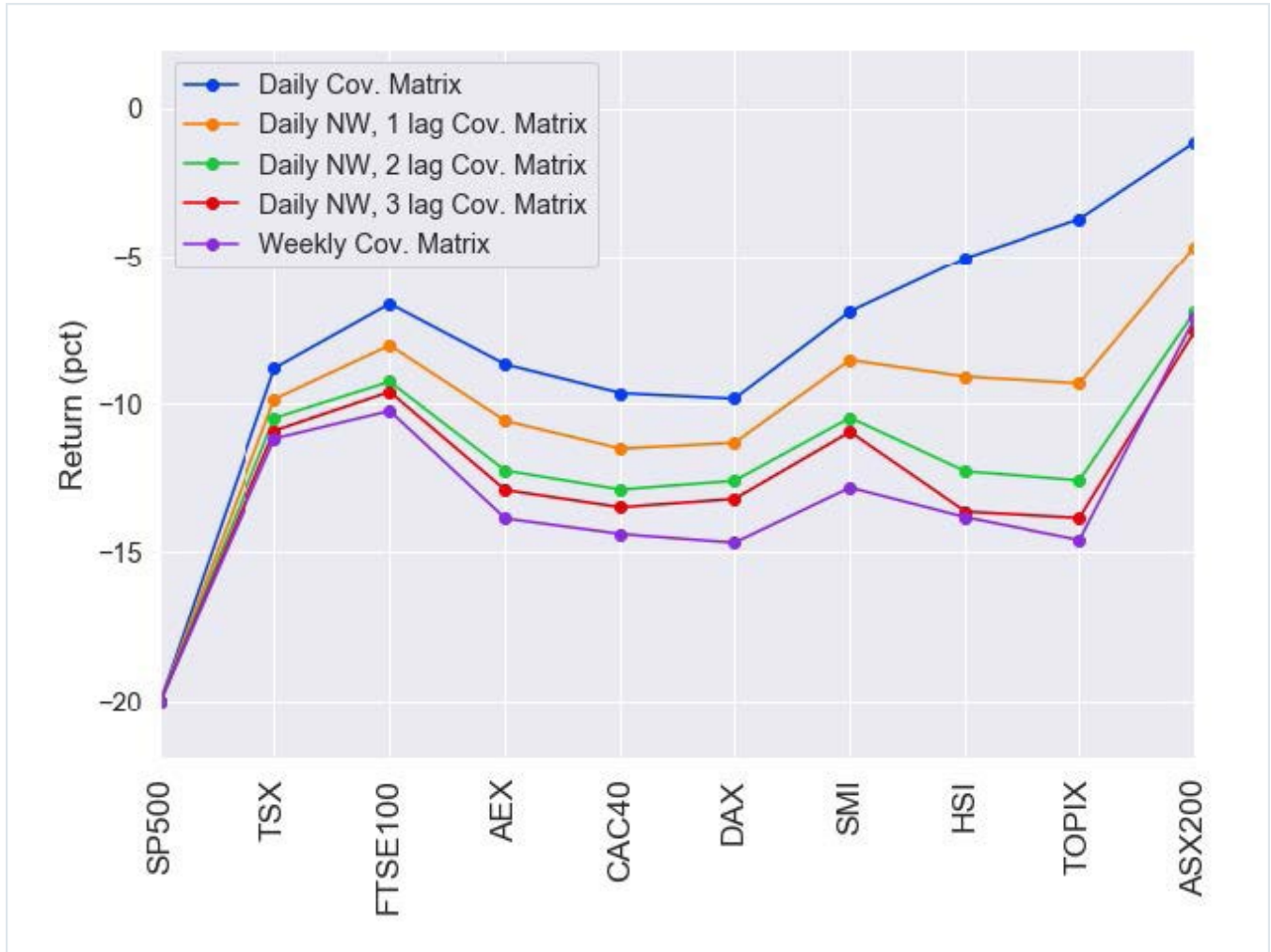

MODEL COVERAGE

For factor estimation, the model uses a relatively small Estimation Universe that closely tracks the global market. In contrast, the Coverage Universe contains all the possible securities. The model is equipped to cover roughly 75,000 securities over recent years.
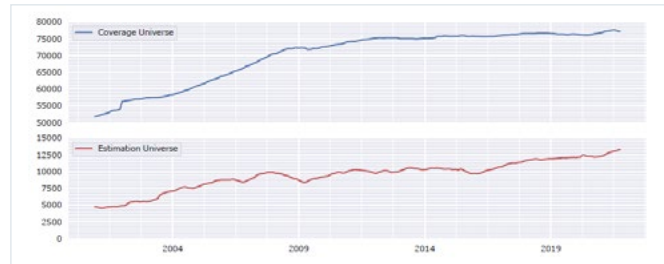
SPECIFIC RISK

Specific risk, which is the risk left unexplained by the model, can be evaluated by using the time series of residual returns. These residuals are assumed to be uncorrelated. The FactSet Daily Global Equity Model exhibits a distribution of residual return correlations that are largely symmetric with approximately zero mean and with major overlap of the ideally random distribution. This suggests that the important market factors are captured by the model.
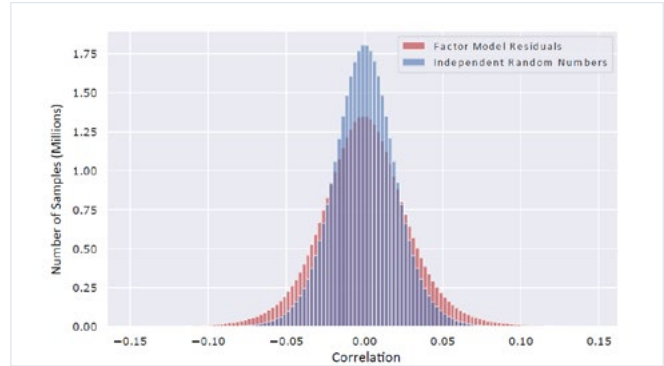
MODEL PERFORMANCE

The model uses a daily cross-sectional regression weighted by market capitalization to estimate the factor returns (except FX factors). The performance of the resulting model is validated by measuring key metrics such as e.g., regression R2, t-statistics for each factor and factor correlation. Notably, backtests were performed on leading equity indices, yielding excellent results.

Backtest - Global and Regional Indices

% of time VaR breaches and Bias Test are within limits (*)   FactSet Equity Model - Global (Daily)

Date Range: 12/29/2000   to   11/25/2021

	VaR 95			Bias Tests		
	Over Estimated	Pass Backtest	Under Estimated	Over Estimated	Pass Backtest	Under Estimated
Global						
MSCI All Country World	10.36	86.85	2.79	26.32	66.40	7.28
MSCI World	13.55	82.60	3.85	25.78	66.62	7.59
MSCI Emerging Markets	4.50	88.60	6.89	20.25	67.97	11.78
Regional						
MSCI Europe	4.95	73.40	21.66	16.73	67.38	15.89
MSCI Pacific Ex-Japan	6.18	88.89	4.93	19.42	72.06	8.51
MSCI BRIC	3.04	80.21	16.75	16.90	67.21	15.89
MSCI EAFE	12.24	86.29	1.46	23.90	67.84	8.26
Key Markets						
Dow Jones Industrials	5.18	84.41	10.41	19.63	67.88	12.50
S&P 500	1.88	81.30	16.82	18.92	65.72	15.36
FTSE 100	3.93	72.07	24.00	14.65	70.03	15.32
Japan: Nikkei 225	1.75	76.09	22.16	11.04	67.05	21.91
S&P/ASX 300	3.35	82.77	13.88	15.96	70.31	13.73
S&P/TSX 60	7.43	88.97	3.60	30.50	60.84	8.66
FTSE China A All Share	6.73	87.70	5.57	20.63	63.83	15.54
FTSE JSE All Share	4.60	81.78	13.61	15.70	66.88	17.42

(*) 2-tailed test 95% confidence level