

# Barra Analytics on FactSet

## Risk Analytics and Optimizer

Superior risk and portfolio optimization analytics to help you construct and rebalance your portfolios in line with your investment objectives.

### Key Benefits

**Identify Sources of Risk** — Isolate industry, style, market or asset specific sources of risk to see which policies are the largest contributors to the portfolio's risk.

**Enhance Understanding of Performance** — Strengthen your understanding of the risk/return trade-off and the impacts to performance from transaction costs, penalties and other user-defined constraints.

**Process Control** — Using Barra Analytics on Factset allows you to monitor, control and improve your process to ensure a consistent and replicable investment process.

**User-defined Constraints** — Incorporate user-defined values into the construction process to neutralize unintended exposures and manage policies.

**Reduce Unintentional Bets** — By combining the exposure and volatility of each source of risk, you can better discover your unintentional bets.

**Workflow Integration** — Import alphas from FactSet's Alpha Testing application and fundamental data from FactSet's databases directly into the Barra Portfolio Manager on FactSet to provide a seamless workflow.

**Customizable Long/Short Optimization** — Flexibility to control the long and short sides of your portfolio separately or together using both hard and soft constraints. Additional features allow users to determine optimal leverage within user-defined ranges.

**Greater Control Over Risk Targets** — In addition to standard optimization, where the optimizer chooses the portfolio with the best risk-return trade-off, users can optimize toward user-defined risk and return targets.

The screenshot displays the Barra Risk Decomposition tool interface. The main window shows a comparison between two portfolios: FactSet Asia Pacific ex-Japan Fund and MSCI All Country Asia Pacific Ex-Japan. The data is presented in a table format with columns for the two funds and their respective data sources. The table includes a summary section and a detailed Barra Risk Decomposition section.

	FactSet Asia Pacific ex-Japan Fund	MSCI All Country Asia Pacific Ex-Japan
<b>Summary</b>		
Port. Ending Market Value	611,169,434	3,085,768,324,206
Predicted Beta (vs. Bmic)	95	--
<b>Barra Risk Decomposition (Std Dev)</b>		
Total Risk	27.75	28.84
Benchmark Risk	28.84	28.84
Active Risk	3.66	--
<b>Common Factor Risk:</b>		
Asia Equity	76	--
Countries	2.35	--
Industries	89	--
Market Factors	3.22	--
Risk Indices	89	--
Covariance * 2	--	--
Asset Selection Risk	1.10	--
<b>Barra Risk Decomposition (%)</b>		
<b>% Contribution: Common Factors</b>		
Asia Equity	4.29	--
Countries	41.08	--
Industries	5.87	--
Market Factors	77.41	--
Risk Indices	5.94	--
Covariance * 2	-43.55	--
<b>% Contribution: Asset Selection</b>	8.94	--

CONTACT US  
Americas  
1.888.588.4567  
Amsterdam  
+31.20.462.1382  
Atlanta  
+1.404.551.3212  
Boston  
+1.617.532.0920  
Cape Town  
+27.21.673.0100  
Chicago  
+1.312.675.0545  
China North  
10800.852.1032  
China South  
10800.152.1032  
Frankfurt  
+49.69.133.859.00  
Geneva  
+41.22.817.9777  
Hong Kong  
+852.2844.9333  
London  
+44.20.7618.2222  
Madrid  
+34.91.700.7275  
Milan  
+39.025.849.0415  
Monterrey  
+52.81.1253.4020  
Montreal  
+1.514.847.7506  
New York  
+1.212.804.3901  
Paris  
0800.91.59.17  
San Francisco  
+1.415.836.8800  
São Paulo  
+55.11.3706.1360  
Seoul  
+827.0768.88984  
Singapore  
800.852.3749  
Stamford  
+1.203.325.5630  
Sydney  
+612.9033.9333  
Tokyo  
+81.3.5226.8222  
Toronto  
+1.416.628.1007  
Zurich  
+41.44.220.9300

## Key Features and Coverage

The Barra Optimizer can be used with all available Barra models on the FactSet platform. It is loaded with a full set of portfolio construction and optimization features including:

- Constraints: Factor, User Data, Sectors, Turnover, Leverage, Beta
- Roundlotting during optimization, not after
- Penalty Functions: Factor, User Data, Sectors, Beta, Countries
- Transaction Costs
- Long/Short (hedge) Optimization
- Risk/Return Targets

## Available Barra Models

Market	Equity Models*	Risk Indices	Industries	Assets
Australia	<b>Australia Equity Models (AUE3) (Long-Term and Short-Term)</b> For managers with investment horizons exceeding 6 months, or between 1-6 months, respectively.	9	14	1,600
Europe	<b>Europe Equity Models (EUE3) (Long-Term and Short-Term and Derived)</b> For managers with investment horizons exceeding 6 months, or between 1-6 months, respectively. They also offer derived models that let managers choose a home region such as the UK, Western, or Eastern Europe.	9	29	9,500
Asia Pacific	<b>Asia Pacific Equity (ASE1) (Long-Term and Short Term)</b> For managers with investment horizons exceeding 6 months, or between 1-6 month respectively	8	23	20,000
Global	<b>Global Equity Models (GEM2) (Long-Term and Short-Term)</b> For managers with investment horizons exceeding 6 months, or between 1-6 months, respectively.	8	34	45,000
Japan	<b>Japan Equity Models (JPE3 &amp; JPE3 S) (Long-Term and Short-Term)</b> For managers with investment horizons exceeding 6 months, or between 1-6 months, respectively.	12	41	3,636
UK	<b>UK Equity Model (UKE7) (Long-Term and Short-Term)</b> For managers with investment horizons exceeding 6 months, or between 1-6 months, respectively.	11	42	2,458
US	<b>US Equity Models (USE3) (Long-Term and Short-Term)</b> For managers with investment horizons exceeding 6 months, or between 1-6 months, respectively.	13	55	11,722
	<b>US Small Cap Model (USSC)</b> For managers concentrated in small-cap securities.	11	55	11,722

\* Barra Integrated Model (BIME) is also available on Factset. BIME is a model for forecasting the asset and portfolio level risk of global equities. The model uses innovative methods to couple broad asset coverage with the detailed analysis of Barra's models that focus on particular markets. This makes it suitable for a wide range of investment purposes, from conducting an in-depth analysis of a single-country portfolio to understanding the risk profile of a broad set of international investments.

\* Also Available for the following markets: Brazil, Canada, China, Hong Kong, Korea, Mexico, South Africa, Singapore, Taiwan.

## Risk and Performance in PA2

Standard Barra risk-forecasting analytics include portfolio, factor and asset-level measures in both absolute and benchmark relative terms. Barra models are also available for use with FactSet analytics.

## About MSCI

MSCI is a leading provider of investment decision support tools to investors globally, including asset managers, banks, hedge funds and pension funds. MSCI products and services include indices, portfolio risk and performance analytics, and governance tools.

The company's flagship product offerings are: the MSCI indices which include over 120,000 daily indices covering more than 70 countries; Barra portfolio risk and performance analytics covering global equity and fixed income markets; RiskMetrics market and credit risk analytics; ISS governance research and outsourced proxy voting and reporting services; FEA valuation models and risk management software for the energy and commodities markets; and CFRA forensic accounting risk research, legal/regulatory risk assessment, and due-diligence. MSCI is headquartered in New York, with research and commercial offices around the world.

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