

BARRA® US TOTAL MARKET EQUITY MODELS

BASED ON THE LATEST RESEARCH METHODOLOGIES, THE MODELS IN THE BARRA® US TOTAL MARKET EQUITY MODEL SUITE ARE DESIGNED TO PROVIDE INSIGHT ACROSS THE INVESTMENT PROCESS, RANGING FROM PORTFOLIO CONSTRUCTION AND RISK MONITORING TO TRADING.

KEY FEATURES

- **Introducing new factors** based on **Systematic Equity Strategies** research. New factors include **Sentiment, Short Interest, and Regional Momentum**.
- **Descriptors, the building blocks of the model's styles** are available. This dataset is enriched by MSCI's extensive quality assurance processes and research team to deliver value in alpha generation, portfolio construction and hedging activities.
- **Comprehensive coverage of US companies including small-cap and microcap securities.** As of October 2014, we cover over 20,000 US securities including IPOs, pink sheets, OTC securities and over 4,500 foreign-listed shares of US companies.
- **Daily model updates**
- **Enhanced Beta estimation** reduces errors in the beta estimates while increasing their accuracy.
- **Optimization Bias Adjustment** improves risk forecasts for optimized portfolios.
- **Implied Volatility Adjustment** leverages option-implied volatility to improve risk forecasts in the Trading model.
- **Volatility Regime Adjustment** calibrates factor volatilities to current levels resulting in faster response to new or recent market trends.
- **Robust specific risk model**, incorporating Bayesian Adjustment for greater forecast accuracy.
- **Separation of market and industry effects through a US Country factor** results in an improved ability to capture correlations between industries. **60 industry factors based on the Global Industry Classification Standard (GICS®).**
- **Deep daily model history goes back to July 1995. Deep history back to the 1970s** for the model version based on *Barra* industries.
- **Model Receipt** posted daily, providing transparency and insight into model reaction from changes in underlying data.
- **Available in *Barra* PortfolioManager, Barra Aegis and Models Direct flat files**, which can be seamlessly integrated into the *Barra* Optimizer or other investment tools.

FACTOR STRUCTURE: NOW ALIGNED WITH THE INVESTMENT HORIZON

LONG-TERM	MEDIUM-TERM	TRADING
<ul style="list-style-type: none"> • Stable set of factors for long investment horizons • Designed with a focus on portfolio construction and reporting • Available in Stable and Responsive variants 	<ul style="list-style-type: none"> • Includes all styles from the Long Term model plus additional factors for investment horizons between 1 month and 1 year • Ideal for risk monitoring and attribution. 	<ul style="list-style-type: none"> • The most comprehensive style library with 24 styles • Most responsive model in the family with a daily forecast horizon • Constructed for supporting short-term trading, hedging, and daily risk monitoring

KEY FEATURES

Unique Sources of Risk from Common Sources of Return

The **rich factor structure** of the *Barra* US Total Market Equity Models helps **understand the drivers of performance and risk for investment managers**. In each version of the model, factors and methodologies are chosen carefully to produce the most accurate risk forecasts while taking into account overall objectives such as low portfolio turnover.

Deeper Insights through Systematic Equity Strategies

The model reveals previously hidden sources of risk and return through factors based on Systematic Equity Strategies, which are the systematic implementation of well-documented fundamental or technical equity investment strategies. The factors also measure a portfolio's sensitivity to **potentially crowded trades, track seasonality and market timing effects**, and help clients **identify persistent market anomalies**.

The charts show the cumulative factor returns from July 1995 to Oct 2014 for the Profitability, Earnings Quality, Management Quality and Prospect factors in the Long-Term Model, which are all based on Systematic Equity Strategies. Profitability and Earnings Quality exhibit a strong negative correlation with the market. Management Quality helps captures the difference in risk and return of stocks based on the tendency of their management to overinvest whereas Prospect measures the risk associated with stocks that have exhibited lottery-like behaviour in the recent period.



FUNDAMENTAL

- Value
- Profitability
- Growth
- Leverage
- Earnings Quality
- Management Quality
- Dividend Yield
- Earnings Yield

TECHNICAL

- Momentum
- Liquidity
- Beta
- Residual Volatility
- Long Term Reversal
- Prospect
- Size
- Mid Capitalization

MEDIUM-TERM

- Sentiment
- Short Interest
- Regional Momentum
- Industry Momentum
- Downside Risk

TRADING

- Seasonality
- Short-term Reversal
- 1-Day Reversal

ABOUT MSCI

For more than 40 years, MSCI's research-based indexes and analytics have helped the world's leading investors build and manage better portfolios. Clients rely on our offerings for deeper insights into the drivers of performance and risk in their portfolios, broad asset class coverage and innovative research. Our line of products and services includes indexes, analytical models, data, real estate benchmarks and ESG research. MSCI serves 98 of the top 100 largest money managers, according to the most recent P&I ranking. For more information, visit us at www.msci.com.

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