

# BarraOne Factor-based Equity Performance Attribution

Multi-asset class platform for enterprise investment risk and performance attribution.

Factor-based equity performance attribution in BarraOne allows users to analyze sources of multi-currency portfolio return and risk along common dimensions.

## Key Benefits

### **One Platform for Risk and Performance** –

Complete the investment management feedback loop by identifying the common set of factors driving risk and performance using a consistent model.

### **Insight into Sources of Portfolio Performance** –

Identify granular sources of return based on Barra equity factors.

### **Manager Selection and Monitoring** –

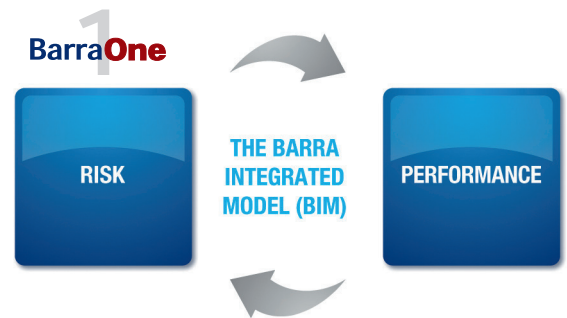
Identify whether portfolio positioning decisions are consistent with the stated strategy. Compare managers based on risk-adjusted returns.

### **Demonstrate Performance Without Divulging Positions**

– Validate relative success without revealing individual positions or trades by attributing performance to factors.

### **Identify Manager Skill** –

Identify whether performance was due to stock selection or benchmark returns.



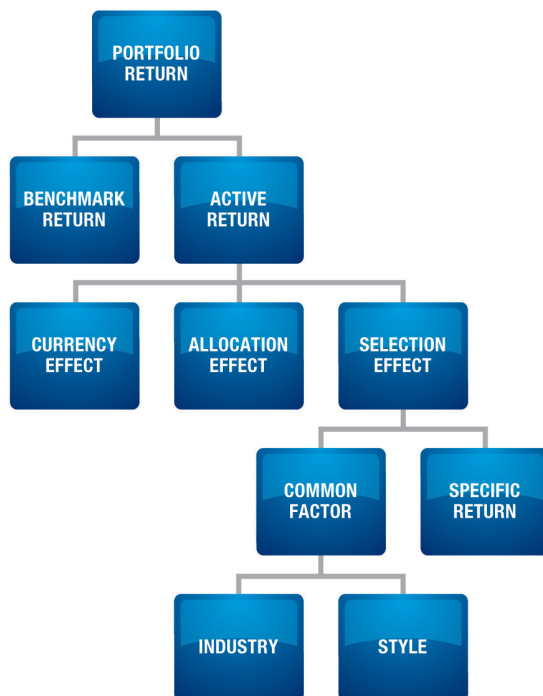
Bring consistency to the investment process by using one product and one model for both performance and risk.

**Simplify Data Maintenance** – Benefit from a single data loading and reconciliation process for both risk and performance attribution needs.

**Pre-loaded Historical Data** – Market data, asset data and a wide variety of popular indices are available in BarraOne.

**Easy to Use** – Use an intuitive and streamlined workflow to reduce data maintenance costs and simplify attribution reporting.

**Automate Data Loading & Reporting** – DataConnect, the BarraOne Developer's Toolkit and Barra PartnerLink help automate the importing of portfolio holdings, returns, attributes and custom benchmarks. Results are easily exported and distributed in standard or customized reports.



Attribute return along the same dimensions as risk using BarraOne's factor-based equity performance attribution model.

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**Key Features**

**Broad Market Coverage** – Available for all 59 equity markets currently supported in BarraOne.

**Rich Data History** – Run performance attribution reports going back to January 1, 2003.

**Daily Data** – All the attribution computations are carried out based on daily security-level data.

**Portfolio Trend Analysis** – Analyze portfolio performance graphically over user-defined time periods.

**Flexible Reporting** – From an executive summary to detailed factor-level and asset-level reports.

**Returns Calculator** – Returns for many derivatives are automatically computed. BarraOne also allows users to import returns for all assets.

**Preloaded Benchmarks and Market Conditions** – A large universe of equity and fixed income benchmarks are pre-loaded onto the platform and ready to be used.

**Granular Sources of Performance** – Factor-level performance attribution for equities, equity derivatives, and any instrument type exposed to equity factors in the Barra Integrated Model (BIM).

**Multiple Attribution Models** – In addition to factor-based equity performance attribution, BarraOne also provides the following attribution models:

- **Allocation-Selection Attribution** – Industry-standard Brinson-Fachler attribution for top-down sector allocation strategies for equity or balanced portfolios.
- **Asset Selection Attribution** – Evaluate bottom-up stock-picking investment strategies for equity or balanced portfolios using asset selection attribution.
- **Fixed Income Attribution** – Identify sources of active return due to yield curve movement and credit spread bets using fixed income attribution.

Portfolio: Global Equity Portfolio  
Benchmark: MSE MU\_AD  
Base Currency: EUR

**Executive Summary**  
Date Range: 2008/08/31 – 2009/08/31

Analysis Summary	
<b>Portfolio</b>	<b>Global Equity Portfolio</b>
<b>Benchmark</b>	<b>MSEMU_AD</b>
Start date	2008/08/31
End date	2009/08/31
Opening portfolio base market value	2,194,389,459,234.07
Closing portfolio base market value	1,698,674,564,133.23
Base currency	EUR

Attribution Summary	
Active return/ Attribution total	-1.95%
Allocation	-2.67%
Selection	0.73%
Industry	0.28%
Style	0.11%
Specific return	0.34%
Currency	0.00%

Return Summary	
Portfolio Return (%)	-17.87
Benchmark Return (%)	-15.92
Active Return (%)	-1.95

Ex Post Risk Measures	
Information Ratio	-0.75
T-stat	0.75
Portfolio volatility (%)	38.55
Tracking error (%)	2.51
Beta	1.01

**Attribution Summary (%)**

Executive summary reports show top-level snapshots of portfolio performance.

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