MSCI FaCS™ and MSCI Factor Box

MSCI FaCS™ is a classification standard and framework for evaluating, implementing and reporting style factors in equity portfolios.

Factor Box provides the visual representation of MSCI FaCS™

Factors are important drivers of risk and return. Factor Investing is transforming the way investors construct and manage portfolios. The increasing popularity of Factor Investing creates the need for standards.

MSCI FaCS™, a Factor classification standard and its visual representation, the MSCI Factor Box, are designed to provide investors the essential tools and common language for implementing Factor Investing strategies.

**Key features**
- Standard framework and tools for investors to easily analyze, compare, implement and report Factor Investing strategies
- Based on the MSCI Barra Global Equity Factor Model (GEMLT), benefiting from MSCI’s 40+ years of Factor experience
- MSCI FaCS™ provides a consistent and comprehensive security level Factor view for 70,000+ global equities
- MSCI Factor Box provides the visualization to easily compare Factor exposures between funds and benchmarks

**Key benefits**
- **Analyze** equity portfolio exposures at a holdings level across style Factor dimensions
- **Compare** factor exposures vs. a factor index as a way to evaluate manager insight or skill
- **Report** factor exposures as a source of differentiation to attract investor interest

**What is MSCI FaCS™?**
- MSCI FaCS™ is a standard method for evaluating and reporting the Factor characteristics of equity portfolios
- MSCI FaCS™ consists of 8 Factor Groups that have been extensively documented in academic literature and validated by MSCI Research as key drivers of risk and return
- The 8 Factor Groups are constructed by aggregating 16 Factors from the latest Barra global equity factor risk model, GEMLT, designed to make fund comparisons transparent and intuitive for use
- MSCI FaCS™ is the Factor classification standard that powers Factor Box
Based on MSCI’s Global Equity Factor Structure, MSCI FaCS™ includes 8 Factor Groups, and 16 Factors

<table>
<thead>
<tr>
<th>VOLATILITY</th>
<th>YIELD</th>
<th>QUALITY</th>
<th>MOMENTUM</th>
<th>VALUE</th>
<th>SIZE</th>
<th>GROWTH</th>
<th>LIQUIDITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta</td>
<td>Dividend yield</td>
<td>Leverage</td>
<td>Momentum</td>
<td>Book-to-price</td>
<td>Mid cap</td>
<td>Growth</td>
<td>Liquidity</td>
</tr>
<tr>
<td>Residual volatility</td>
<td>Investment quality</td>
<td>Earnings variability</td>
<td>Earnings quality</td>
<td>Earnings yield</td>
<td>Size</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Profitability</td>
<td></td>
<td></td>
<td>Reversal</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How does Factor Box work?

The Factor Box is powered by MSCI FaCS™ and includes Factors that MSCI has identified that historically provided a return premium (MSCI Research – Foundation of Factor Investing, 2013). On the vertical axis the Factor Groups are displayed and the horizontal axis displays the Factor exposure, overweight or underweight, compared to a benchmark. The design of the Factor Box allows investors to compare Factor exposures in three different visuals:

- **Bars** shows the fund exposure across each factor
- **Circle** shows the Factor exposure of chosen benchmark (ex. MSCI USA Index)
- **Distance between circle and bar shows difference between fund exposure and benchmark exposure = Active Factor exposure**

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 45 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

To learn more, please visit www.msci.com.