When an actively managed mutual fund’s Net Asset Value (NAV) is fair value adjusted and its benchmark is calculated on closing prices, this results in an artificial tracking error.

The MSCI Indexes with ITG Fair Value Model help active fund managers, pension plans and consultants explain the artificial tracking error between a fund’s fair value adjusted NAV and an MSCI index calculated using closing prices.

**KEY BENEFITS**

The MSCI Indexes with ITG Fair Value Model offer the following benefits to active fund managers, pension plans and consultants:

- **Marketing and Reporting** – Explain active mutual fund tracking error to clients
- **Internal Reporting** – Explain return dispersion for active mutual funds to investment boards
- **Fund Evaluation and Research** – Support active mutual fund research process

**FIGURE 1: FAIR VALUE ADJUSTMENT COMPARISON**

2012 Net Total Return

<table>
<thead>
<tr>
<th>Index Methodology</th>
<th>2012 Net Total Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI EAFE Index</td>
<td>17.3%</td>
</tr>
<tr>
<td>MSCI EAFE Index with ITG Fair Value Model</td>
<td>18.7%</td>
</tr>
</tbody>
</table>

2013 Net Total Return

<table>
<thead>
<tr>
<th>Index Methodology</th>
<th>2013 Net Total Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI EAFE Index</td>
<td>22.8%</td>
</tr>
<tr>
<td>MSCI EAFE Index with ITG Fair Value Model</td>
<td>21.9%</td>
</tr>
</tbody>
</table>

**INDEX METHODOLOGY**

The MSCI Indexes with ITG Fair Value Model are calculated using fair value adjustment factors as of the close of the New York Stock Exchange provided by ITG’s Portfolio Fair Value Service.

- For each constituent, the Fair Value return is calculated using the FV evaluated adjustment factor from ITG and the 4:00P.M. EST WM/Reuters exchange rate
- The fair value adjusted index return is then calculated as the weighted sum of the constituents’ fair value returns

* The MSCI Indexes with ITG Fair Value Model are only available outside the European Union.
The fair value adjusted index level is derived by multiplying this fair value adjusted index return with the official USD closing level of the index for day t to derive the fair value adjusted index level.

Figure 2 illustrates the need to Fair Value adjust the price of a Japanese electronics company. The trading price of XYZ Inc. shares closed at $120 USD on the Japanese Exchange at 2:00 A.M. EST. Afterwards, there was some negative news that led the global sector to a 5% decrease. By 4:00 P.M. EST – when the U.S. market closes – the value of the Japanese electronics company in international portfolios is adjusted to a $114 USD Fair Value Price.

**FIGURE 2: FAIR VALUE HYPOTHETICAL EXAMPLE**

- XYZ closes @ $120 USD in the Japanese Stock Exchange
- Japan Stock Exchange closes @ 2:00 a.m. EST
- A multinational Japanese electronics company (XYZ) stops trading @ $120 USD.
- London Stock Exchange closes @ 11:30 a.m. EST
- The Consumer Electronics Association (CEA) releases a negative outlook for US consumer electronics sales. The shares of many technology firms drop by 5%.
- US Market Closes @ 4:00 p.m. EST
- If XYZ was trading we would assume that their shares would be affected too. So its closing price would be $114 USD. This is the Fair Value Price.

**INDEX LICENSING**

Ongoing Fair Value Adjusted Index Levels for 129 flagship indexes will be available in the MSCI Index Module with ITG Fair Value Model. Indexes derived from the MSCI ACWI IMI security universe are included. The MSCI Indexes with ITG Fair Value Model are only available outside the European Union.

**INDEX DELIVERY**

Index and security level data are distributed daily through vendors or via direct delivery (Internet FTP).

**INDEX HISTORY**

Daily index level history is available back to 2005.

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