Description
The S&P GIVI® (Global Intrinsic Value Index) is a rules-based series designed to deliver both lower volatility and performance weighted by intrinsic stock value rather than by traditional market capitalization.

Index Attributes
Alternative beta strategies have become increasingly popular. This index is designed to serve as both a benchmark and an investable index intended to reflect a global alternative beta strategy. The S&P GIVI draws its constituents from the S&P Global BMI, a broad, float-adjusted market capitalization weighted benchmark that includes more than 10,000 stocks from 48 emerging and developed countries. To achieve its goal of lower volatility, the S&P GIVI excludes the 30% of market capitalization with the highest beta in each country. It then weights each of the remaining stocks by their intrinsic value. S&P GIVI is available globally and by country or region. The indices are calculated in seven currencies.

Methodology Construction
- **Universe.** To be included in the S&P GIVI Global, constituents must be included in the S&P Global BMI.
- **Constituent Selection.** 30% of the total float-adjusted market capitalization of each component country in the S&P Global BMI is removed, in order of the most volatile stocks as measured by regional market stock beta. The 70% that is left of each component country in the S&P Global BMI forms the S&P GIVI Global.
- **Market Cap.** To be included in the S&P Global BMI, and hence the S&P GIVI Global, constituents must have at least USD 100 million in float-adjusted market capitalization.
- **Liquidity.** To be included in the S&P Global BMI, and hence the S&P GIVI Global, constituents must have a minimum annual dollar value traded of USD 50 million.
- **Intrinsic Value Weights.** Each constituent in the index is weighted by its calculated intrinsic value, rather than market capitalization. The intrinsic value of each constituent is determined by its book value and its discounted projected earnings. The discount rate is calculated using a stock’s beta, derived from its previous five years of price returns and a risk-free interest rate.
- **Diversification.** A stock’s weight is capped if its intrinsic value weight is above its regional S&P Global BMI float-adjusted market capitalization weight by a specific upper bound.

Quick Facts
<table>
<thead>
<tr>
<th>WEIGHTING METHOD</th>
<th>Intrinsic value weighted</th>
</tr>
</thead>
<tbody>
<tr>
<td>REBALANCING FREQUENCY</td>
<td>Semiannually in March and September</td>
</tr>
<tr>
<td>CALCULATION FREQUENCY</td>
<td>End of day</td>
</tr>
<tr>
<td>CALCULATION CURRENCIES</td>
<td>USD, AUD, CAD, EUR, GBP, JPY, LCL, NZD</td>
</tr>
<tr>
<td>LAUNCH DATE</td>
<td>March 19, 2012</td>
</tr>
<tr>
<td>FIRST VALUE DATE</td>
<td>December 31, 1999</td>
</tr>
<tr>
<td>REGULATORY AUTHORIZATION</td>
<td>European Union</td>
</tr>
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</table>

For more information, including the complete methodology document, please visit: https://www.spindices.com/indices/strategy/sp-givi-global-index-us-dollar

All information for an index prior to its Launch Date is back-tested, based on the methodology that was in effect on the Launch Date. Back-tested performance, which is hypothetical and not actual performance, is subject to inherent limitations because it reflects application of an Index methodology and selection of index constituents in hindsight. No theoretical approach can take into account all of the factors in the markets in general and the impact of decisions that might have been made during the actual operation of an index. Actual returns may differ from, and be lower than, back-tested returns.
Historical Performance
* Data has been re-based at 100

Performance

<table>
<thead>
<tr>
<th>INDEX LEVEL</th>
<th>RETURNS</th>
<th></th>
<th>ANNUALIZED RETURNS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 MO</td>
<td>3 MOS</td>
<td>YTD</td>
</tr>
<tr>
<td>TOTAL RETURNS</td>
<td>458.83</td>
<td>5.86%</td>
<td>3.03%</td>
</tr>
<tr>
<td>PRICE RETURNS</td>
<td>269.97</td>
<td>5.56%</td>
<td>2%</td>
</tr>
<tr>
<td>BENCHMARK* TOTAL RETURNS</td>
<td>420.24</td>
<td>6.43%</td>
<td>3.56%</td>
</tr>
<tr>
<td>BENCHMARK* PRICE RETURNS</td>
<td>259.26</td>
<td>6.2%</td>
<td>2.72%</td>
</tr>
<tr>
<td>BENCHMARK* NET TOTAL RETURNS</td>
<td>332.83</td>
<td>6.38%</td>
<td>3.37%</td>
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</tbody>
</table>

* The index benchmark is the S&P Global BMI (USD)
### Calendar Year Performance

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL RETURNS</td>
<td>-8.82%</td>
<td>23.11%</td>
<td>8.45%</td>
<td>-0.57%</td>
<td>5.67%</td>
<td>23.79%</td>
<td>15.2%</td>
<td>-2.84%</td>
<td>13.41%</td>
<td>32.27%</td>
</tr>
<tr>
<td>PRICE RETURNS</td>
<td>-11.43%</td>
<td>19.86%</td>
<td>5.39%</td>
<td>-3.25%</td>
<td>2.88%</td>
<td>20.42%</td>
<td>11.78%</td>
<td>-5.68%</td>
<td>10.23%</td>
<td>28.12%</td>
</tr>
<tr>
<td>BENCHMARK* TOTAL RETURNS</td>
<td>-9.67%</td>
<td>24.69%</td>
<td>8.84%</td>
<td>-1.58%</td>
<td>4.36%</td>
<td>24.12%</td>
<td>17.15%</td>
<td>-7.72%</td>
<td>15.11%</td>
<td>37.76%</td>
</tr>
<tr>
<td>BENCHMARK* PRICE RETURNS</td>
<td>-11.84%</td>
<td>21.81%</td>
<td>6.09%</td>
<td>-3.89%</td>
<td>1.96%</td>
<td>21.15%</td>
<td>14.07%</td>
<td>-10.07%</td>
<td>12.44%</td>
<td>34.03%</td>
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<tr>
<td>BENCHMARK* NET TOTAL RETURNS</td>
<td>-10.15%</td>
<td>24.05%</td>
<td>8.23%</td>
<td>-2.08%</td>
<td>3.85%</td>
<td>23.49%</td>
<td>16.52%</td>
<td>-8.19%</td>
<td>14.57%</td>
<td>36.99%</td>
</tr>
</tbody>
</table>

* The index benchmark is the S&P Global BMI (USD)

### Risk

<table>
<thead>
<tr>
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<th>3 YRS</th>
<th>5 YRS</th>
<th>10 YRS</th>
<th>3 YRS</th>
<th>5 YRS</th>
<th>10 YRS</th>
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</thead>
<tbody>
<tr>
<td>STD DEV</td>
<td>10.16%</td>
<td>10.64%</td>
<td>12%</td>
<td>1.01</td>
<td>0.58</td>
<td>0.9</td>
</tr>
<tr>
<td>BENCHMARK* STD DEV</td>
<td>11.39%</td>
<td>11.82%</td>
<td>13.61%</td>
<td>1.05</td>
<td>0.55</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Risk is defined as standard deviation calculated based on total returns using monthly values.

* The index benchmark is the S&P Global BMI (USD)

### Fundamentals

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>P/E (TRAILING)</td>
<td>14.93</td>
<td>13.32</td>
<td>1.41</td>
<td>3.15%</td>
<td>1.12</td>
<td>11.94</td>
<td></td>
<td></td>
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<tr>
<td>P/E (PROJECTED)</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P/B</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

As of June 28, 2019. Fundamentals are updated on approximately the fifth business day of each month.
Index Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Constituents</td>
<td>7442</td>
</tr>
<tr>
<td>Mean Total Market Cap</td>
<td>6,648.28</td>
</tr>
<tr>
<td>Largest Total Market Cap</td>
<td>1,026,511.1</td>
</tr>
<tr>
<td>Smallest Total Market Cap</td>
<td>22.55</td>
</tr>
<tr>
<td>Median Total Market Cap</td>
<td>1,199.32</td>
</tr>
<tr>
<td>Weight Largest Constituent (%)</td>
<td>1.9</td>
</tr>
<tr>
<td>Weight Top 10 Constituents (%)</td>
<td>10.1</td>
</tr>
</tbody>
</table>

ESG Carbon Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted Average Carbon Intensity (Metric Tons CO₂e/$1M Revenues)*</td>
<td>245.58</td>
</tr>
<tr>
<td>Carbon to Value Invested (Metric Tons CO₂e/$1M Invested)*</td>
<td>384.12</td>
</tr>
<tr>
<td>Carbon to Revenue (Metric Tons CO₂e/$1M Revenues)*</td>
<td>350.5</td>
</tr>
<tr>
<td>Weighted Average Carbon Intensity (Metric Tons CO₂e/$1M Revenues)*</td>
<td>384.12</td>
</tr>
<tr>
<td>Fossil Fuel Reserve Emissions (Metric Tons CO₂e/$1M Invested)</td>
<td>5,469.37</td>
</tr>
</tbody>
</table>

*Operational and first-tier supply chain greenhouse gas emissions. For more information, please visit: www.spdji.com/esg-carbon-metrics.

Top 10 Constituents By Index Weight

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Symbol</th>
<th>Sector*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple Inc.</td>
<td>AAPL</td>
<td>Information Technology</td>
</tr>
<tr>
<td>JP Morgan Chase &amp; Co</td>
<td>JPM</td>
<td>Financials</td>
</tr>
<tr>
<td>Microsoft Corp</td>
<td>MSFT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Toyota Motor Corp</td>
<td>7203</td>
<td>Consumer Discretionary</td>
</tr>
<tr>
<td>Samsung Electronics Co</td>
<td>005930</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Berkshire Hathaway B</td>
<td>BRK.B</td>
<td>Financials</td>
</tr>
<tr>
<td>Nestle SA Reg</td>
<td>NESP</td>
<td>Consumer Staples</td>
</tr>
<tr>
<td>AT&amp;T Inc</td>
<td>T</td>
<td>Communication Services</td>
</tr>
<tr>
<td>Wells Fargo &amp; Co</td>
<td>WFC</td>
<td>Financials</td>
</tr>
<tr>
<td>Novartis AG Reg</td>
<td>NOVN</td>
<td>Health Care</td>
</tr>
</tbody>
</table>

*Based on GICS® sectors
<p>**Sector* Breakdown**</p>

![Sector Breakdown Chart](image)

*Based on GICS® sectors

The weightings for each sector of the index are rounded to the nearest tenth of a percent; therefore, the aggregate weights for the index may not equal 100%.

---

**Country Breakdown**

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>NUMBER OF CONSTITUENTS</th>
<th>TOTAL MARKET CAP [USD MILLION]</th>
<th>INDEX WEIGHT [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1,805</td>
<td>21,853,657.47</td>
<td>40.2</td>
</tr>
<tr>
<td>Japan</td>
<td>1,065</td>
<td>3,976,298.45</td>
<td>13.1</td>
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<tr>
<td>United Kingdom</td>
<td>238</td>
<td>2,062,723.2</td>
<td>5.7</td>
</tr>
<tr>
<td>China</td>
<td>579</td>
<td>2,465,354.31</td>
<td>5.2</td>
</tr>
<tr>
<td>Canada</td>
<td>220</td>
<td>1,464,783.72</td>
<td>3.7</td>
</tr>
<tr>
<td>Germany</td>
<td>142</td>
<td>1,420,575.71</td>
<td>3.4</td>
</tr>
<tr>
<td>Korea</td>
<td>464</td>
<td>1,028,935.59</td>
<td>3.3</td>
</tr>
<tr>
<td>Switzerland</td>
<td>61</td>
<td>1,229,762.65</td>
<td>3.3</td>
</tr>
<tr>
<td>France</td>
<td>117</td>
<td>1,955,587.89</td>
<td>3.3</td>
</tr>
<tr>
<td>Taiwan</td>
<td>440</td>
<td>879,350.93</td>
<td>2.4</td>
</tr>
<tr>
<td>Australia</td>
<td>195</td>
<td>989,677.87</td>
<td>2.1</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>121</td>
<td>900,482.17</td>
<td>1.6</td>
</tr>
<tr>
<td>Netherlands</td>
<td>52</td>
<td>591,635.78</td>
<td>1.3</td>
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<tr>
<td>Sweden</td>
<td>131</td>
<td>477,195.83</td>
<td>1.1</td>
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<tr>
<td>Spain</td>
<td>68</td>
<td>596,827.46</td>
<td>1</td>
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<tr>
<td>Russia</td>
<td>54</td>
<td>572,961.77</td>
<td>0.9</td>
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<tr>
<td>Italy</td>
<td>104</td>
<td>522,923.63</td>
<td>0.9</td>
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</table>

*AS OF JUNE 28, 2019*
<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>NUMBER OF CONSTITUENTS</th>
<th>TOTAL MARKET CAP [USD MILLION]</th>
<th>INDEX WEIGHT [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>351</td>
<td>1,490,874.13</td>
<td>0.7</td>
</tr>
<tr>
<td>Singapore</td>
<td>79</td>
<td>318,516.33</td>
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</tr>
<tr>
<td>South Africa</td>
<td>118</td>
<td>377,736.89</td>
<td>0.6</td>
</tr>
<tr>
<td>Brazil</td>
<td>134</td>
<td>719,645.83</td>
<td>0.6</td>
</tr>
<tr>
<td>Belgium</td>
<td>36</td>
<td>262,782.58</td>
<td>0.5</td>
</tr>
<tr>
<td>Finland</td>
<td>28</td>
<td>202,394.3</td>
<td>0.5</td>
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<tr>
<td>Denmark</td>
<td>31</td>
<td>289,785.04</td>
<td>0.4</td>
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<tr>
<td>Thailand</td>
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<td>361,177.3</td>
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<tr>
<td>Israel</td>
<td>60</td>
<td>142,919.19</td>
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<tr>
<td>Norway</td>
<td>49</td>
<td>232,269.57</td>
<td>0.3</td>
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<tr>
<td>Malaysia</td>
<td>80</td>
<td>266,374.35</td>
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<tr>
<td>Mexico</td>
<td>55</td>
<td>263,417.2</td>
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<td>Ireland</td>
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<td>105,235.31</td>
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<td>Poland</td>
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<td>95,319.33</td>
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<tr>
<td>Austria</td>
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<td>87,750.2</td>
<td>0.2</td>
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<tr>
<td>Indonesia</td>
<td>85</td>
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<tr>
<td>Luxembourg</td>
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<td>0.1</td>
</tr>
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<td>Chile</td>
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<td>129,594.7</td>
<td>0.1</td>
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<tr>
<td>New Zealand</td>
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<td>63,110.81</td>
<td>0.1</td>
</tr>
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<td>Philippines</td>
<td>41</td>
<td>160,757.76</td>
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<td>Colombia</td>
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<td>50,134.26</td>
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<td>Qatar</td>
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<td>Portugal</td>
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<td>Hungary</td>
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<td>Peru</td>
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<td>57,054.73</td>
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<td>Czech Republic</td>
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<td>Egypt</td>
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<td>Pakistan</td>
<td>24</td>
<td>14,445.14</td>
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Based on index constituents’ country of domicile.
## Tickers

<table>
<thead>
<tr>
<th></th>
<th>Ticker</th>
<th>Reuters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price Returns</td>
<td>SPVGLUP</td>
<td>N/A</td>
</tr>
<tr>
<td>Total Returns</td>
<td>SPVGLUT</td>
<td>N/A</td>
</tr>
</tbody>
</table>

As of June 28, 2019
DISCLAIMER

Source: S&P Dow Jones Indices LLC.

The launch date of the S&P GIVI Global Index (US Dollar) was March 19, 2012. The launch date of the S&P Global BMI (USD) was December 31, 1992.

All information presented prior to the index launch date is back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Past performance is not an indication or guarantee of future results. Please see the Performance Disclosure at http://www.spindices.com/regulatory-affairs-disclaimers/ for more information regarding the inherent limitations associated with back-tested performance.

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