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Introduction

Index Objective

Each index in the S&P Carbon Efficient Index Series is designed to measure the performance of companies in a respective underlying index, while overweighting or underweighting those companies that have lower or higher levels of carbon emissions per unit of revenue.

The indices were designed in conjunction with S&P Trucost Limited.

Highlights

Constituents’ weights are adjusted within each industry group to reflect each company’s relative carbon-to-revenue footprint. Each index also seeks to maintain the respective GICS® industry group weights of its underlying index, as of the rebalancing reference date.

Each company’s weight adjustment is determined with respect to a unique carbon classification system, the ‘S&P Carbon Global Standard’, developed specifically for these indices. As of the rebalancing reference date, the classification system utilizes the carbon-to-revenue footprints of S&P Global LargeMidCap index constituents to determine decile thresholds for each industry group. Every company is then classified, independent of its index membership, into the appropriate decile and assigned a corresponding weight adjustment.

To ensure weights are adjusted efficiently across various industry groups, an ‘S&P Carbon Global Standard’ classification for each industry group is also determined. As of the rebalancing reference date, each industry group is identified as high, mid or low impact. This classification is based on the range of carbon-to-revenue footprints across the companies within that group in the S&P Global LargeMidCap. An industry group impact factor is then applied in order to intensify or reduce the weight adjustments of companies within industry groups identified as high or low impact.

Index Series

The index series includes the following indices:

- S&P Global LargeMidCap Carbon Efficient
- S&P Global Ex-Japan LargeMidCap Carbon Efficient
- S&P/JPX Carbon Efficient
- S&P Developed LargeMidCap Carbon Efficient
- S&P Emerging LargeMidCap Carbon Efficient
- S&P Europe LargeMidCap Carbon Efficient
- S&P North America LargeMidCap Carbon Efficient
- S&P Asia Pacific LargeMidCap Carbon Efficient
- S&P Latin America LargeMidCap Carbon Efficient

1 A further weight adjustment is made to increase the weight of those companies deemed by Trucost to have sufficiently disclosed their carbon-to-revenue footprint (therefore effectively reducing the weight of non-disclosure companies).

- S&P Global 1200 Carbon Efficient
- S&P 500 Carbon Efficient
- S&P 400 Carbon Efficient
- S&P 600 Carbon Efficient
- S&P Europe 350 Carbon Efficient
- S&P China A Carbon Efficient
- S&P South Africa Domestic Carbon Efficient (DSW)
- S&P South Africa Domestic Carbon Efficient Capped (DSW)

**Supporting Documents**

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

<table>
<thead>
<tr>
<th>Supporting Document</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Dow Jones Indices’ Index Mathematics Methodology</td>
<td><a href="#">Index Mathematics Methodology</a></td>
</tr>
<tr>
<td>S&amp;P Dow Jones Indices’ Global Industry Classification Standard (GICS) Methodology</td>
<td><a href="#">GICS Methodology</a></td>
</tr>
</tbody>
</table>

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of each index governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the index continues to achieve its objective.
Eligibility Criteria and Index Construction

Eligible Universe

At each annual rebalancing, each index is constructed from the constituents of an underlying index as detailed below.

<table>
<thead>
<tr>
<th>Index</th>
<th>Underlying Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Global LargeMidCap Carbon Efficient</td>
<td>S&amp;P Global LargeMidCap</td>
</tr>
<tr>
<td>S&amp;P Global Ex-Japan LargeMidCap Carbon Efficient</td>
<td>S&amp;P Global Ex-Japan LargeMidCap</td>
</tr>
<tr>
<td>S&amp;P Developed LargeMidCap Carbon Efficient</td>
<td>S&amp;P Developed LargeMidCap</td>
</tr>
<tr>
<td>S&amp;P Emerging LargeMidCap Carbon Efficient</td>
<td>S&amp;P Emerging LargeMidCap</td>
</tr>
<tr>
<td>S&amp;P Europe LargeMidCap Carbon Efficient</td>
<td>S&amp;P Europe LargeMidCap</td>
</tr>
<tr>
<td>S&amp;P North America LargeMidCap Carbon Efficient</td>
<td>S&amp;P North America LargeMidCap</td>
</tr>
<tr>
<td>S&amp;P Asia Pacific LargeMidCap Carbon Efficient</td>
<td>S&amp;P Asia Pacific LargeMidCap</td>
</tr>
<tr>
<td>S&amp;P Latin America LargeMidCap Carbon Efficient</td>
<td>S&amp;P Latin America LargeMidCap</td>
</tr>
<tr>
<td>S&amp;P Global 1200 Carbon Efficient</td>
<td>S&amp;P Global 1200</td>
</tr>
<tr>
<td>S&amp;P 500 Carbon Efficient</td>
<td>S&amp;P 500</td>
</tr>
<tr>
<td>S&amp;P 400 Carbon Efficient</td>
<td>S&amp;P MidCap 400</td>
</tr>
<tr>
<td>S&amp;P 600 Carbon Efficient</td>
<td>S&amp;P SmallCap 600</td>
</tr>
<tr>
<td>S&amp;P Europe 350 Carbon Efficient</td>
<td>S&amp;P Europe 350</td>
</tr>
<tr>
<td>S&amp;P China A Carbon Efficient</td>
<td>S&amp;P China A BMI Domestic</td>
</tr>
<tr>
<td>S&amp;P South Africa Domestic Carbon Efficient (DSW)</td>
<td>S&amp;P South Africa Domestic Shareholder Weighted (DSW)</td>
</tr>
<tr>
<td>S&amp;P South Africa Domestic Carbon Efficient Capped (DSW)</td>
<td>S&amp;P South Africa Domestic Shareholder Weighted (DSW)</td>
</tr>
</tbody>
</table>

For more information on an underlying index, please refer to its respective methodology document available at [www.spdji.com](http://www.spdji.com).

The eligible universe of constituents is selected from each underlying index by performing the following two screens:

- All companies certified as a ‘High Non-Disclosing Carbon Emitter’ are excluded. As of the rebalancing reference date, a single threshold is determined based on the 100th ranked company, by carbon emissions, in the S&P Global LargeMidCap. Any company, independent of its index membership, with carbon emissions greater than or equal to this threshold and which is not identified by Trucost as having sufficiently disclosed their carbon emissions is certified as a ‘High Non-Disclosing Carbon Emitter’.

- Non-existing constituents of each corresponding carbon efficient index as of the rebalancing reference date are subject to a liquidity screen, as detailed below:

---

3 China A-Shares are excluded.

4 Also available for the S&P Global Ex-Japan LargeMidCap Carbon Efficient are indices based on country classification, GICS Sectors, and GICS Industry Groups. Please contact index_services@spglobal.com for a complete listing of available indices.
Issues with fewer than three months of trading history are evaluated over the available period and may be included should size and available trading history infer the issue satisfies this requirement.

**Constituent Selection**

All stocks in the eligible universe, as of the rebalancing reference date, are selected and form each index.

**Carbon-to-Revenue Footprint**

For all indices, constituents within Trucost’s coverage universe are assigned an annual carbon-to-revenue footprint, prior to the annual rebalancing reference date. The carbon-to-revenue footprint metric is calculated by Trucost, and is defined as a company’s annual greenhouse gas (GHG) emissions (direct and first tier indirect), expressed as tons of carbon dioxide equivalent (CO₂e), divided by annual revenues. Trucost evaluates the environmental performance of a given company and produces an annual carbon emissions figure. All companies within Trucost’s coverage universe that do not have a recent disclosed annual carbon-to-revenue footprint are assigned one based on an estimate using their proprietary Input-Output model.

**‘S&P Carbon Global Standard’ Classification**

**Decile Classification.** As of rebalancing reference date, decile thresholds are determined for each GICS® industry group based on the carbon-to-revenue footprints of companies in the S&P Global LargeMidCap. Using these thresholds, every company is then classified, independently of its index membership, into its ‘S&P Carbon Global Standard’ decile.

**Disclosure Status.** Companies are further divided into those that have been identified by Trucost as having sufficiently disclosed their carbon emissions and those that have not. Disclosure status is achieved when Trucost identifies companies as having full or partial disclosure in its largest carbon emissions category (between scope 1 and 2).

**Industry Group Classification.** As of rebalancing reference date, each industry group is identified as high, mid or low impact. This classification is based on the range of carbon-to-revenue footprints across the companies within that industry group in the S&P Global LargeMidCap. The range for each industry group is calculated as the spread between its first and last decile threshold.

<table>
<thead>
<tr>
<th>Index</th>
<th>Three-Month Median Daily Value Traded</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Global LargeMidCap Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P Global Ex-Japan LargeMidCap Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P Developed LargeMidCap Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P Emerging LargeMidCap Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P Europe LargeMidCap Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P North America LargeMidCap Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P Asia Pacific LargeMidCap Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P Latin America LargeMidCap Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P Global 1200 Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P 500 Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P 400 Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P 600 Carbon Efficient</td>
<td>USD $3 million</td>
</tr>
<tr>
<td>S&amp;P Europe 350 Carbon Efficient</td>
<td>EUR €3 million</td>
</tr>
<tr>
<td>S&amp;P China A Carbon Efficient</td>
<td>CNY ¥20 million</td>
</tr>
<tr>
<td>S&amp;P South Africa Domestic Carbon Efficient (DSW)</td>
<td>ZAR R3 million</td>
</tr>
<tr>
<td>S&amp;P South Africa Domestic Carbon Efficient Capped (DSW)</td>
<td>ZAR R3 million</td>
</tr>
</tbody>
</table>
Industry groups are classified as follows:

- High impact = range > 500 (CO₂e / revenue)
- Low impact = range <= 150 (CO₂e / revenue)
- Mid impact = all remaining industry groups

**Constituent Weighting**

For each index, as of the rebalancing reference date, constituent weight adjustments are made within each industry group to reduce the portfolio’s overall exposure to carbon emissions per unit of revenue versus that of its underlying index. Each index seeks to maintain the respective GICS® industry group weights of its underlying index as of the rebalancing reference date.⁵

\[
Constituent\ Weight\ in\ Carbon\ Efficient\ Index = \frac{Constituent\ Weight\ in\ Carbon\ Efficient\ Industry\ Group}{Underlying\ Index\ Industry\ Group\ Weight} \times \frac{Constituent\ Float\ Market\ Cap}{Eligible\ Universe\ Industry\ Group\ Float\ Market\ Cap.}
\]

To calculate each constituent’s Carbon Efficient weight with respect to its industry group, the following steps are performed for each industry group:

1. First, the constituents’ weights are calculated with respect to the eligible universe’s industry group, as follows:

\[
Constituent\ Weight\ in\ Carbon\ Efficient\ Industry\ Group\ without\ Adjustment = \frac{Constituent\ Float\ Market\ Cap.}{Eligible\ Universe\ Industry\ Group\ Float\ Market\ Cap.}
\]

2. Next, each of the weights calculated in step 1 are adjusted according to their Carbon Weight Adjustment, as follows:

\[
Constituent\ Weight\ in\ Carbon\ Efficient\ Industry\ Group = \frac{Constituent\ Weight\ in\ Carbon\ Efficient\ Industry\ Group\ without\ Adjustment}{(1 + \text{Carbon Weight Adjustment})}
\]

The Carbon Weight Adjustment is determined by multiplying each company’s Decile Weight Adjustment by its Industry Group Impact Factor as detailed below in the table below:

---

⁵ In the event that the eligible universe contains fewer industry groups than the underlying index, then the weight of each underlying index’s industry groups with eligible constituents are increased proportionally until the sum equals 100%.
### Industry Group Impact Factor

<table>
<thead>
<tr>
<th>Industry Group</th>
<th>Impact Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>x0.5</td>
</tr>
<tr>
<td>Mid</td>
<td>x1</td>
</tr>
<tr>
<td>High</td>
<td>x3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Decile Classification</th>
<th>Disclosure Status</th>
<th>Decile Weight Adjustment</th>
<th>Carbon Weight Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Decile</td>
<td>Disclosed</td>
<td>40%</td>
<td>20% 40% 120%</td>
</tr>
<tr>
<td></td>
<td>Non-disclosed</td>
<td>30%</td>
<td>15% 30% 90%</td>
</tr>
<tr>
<td>2nd Decile</td>
<td>Disclosed</td>
<td>30%</td>
<td>15% 30% 90%</td>
</tr>
<tr>
<td></td>
<td>Non-disclosed</td>
<td>20%</td>
<td>10% 20% 60%</td>
</tr>
<tr>
<td>3rd Decile</td>
<td>Disclosed</td>
<td>20%</td>
<td>10% 20% 60%</td>
</tr>
<tr>
<td></td>
<td>Non-disclosed</td>
<td>10%</td>
<td>5% 10% 30%</td>
</tr>
<tr>
<td>Other7</td>
<td>Disclosed</td>
<td>10%</td>
<td>5% 10% 30%</td>
</tr>
<tr>
<td></td>
<td>Non-disclosed</td>
<td>0%</td>
<td>0% 0% 0%</td>
</tr>
<tr>
<td>8th Decile</td>
<td>Disclosed</td>
<td>0%</td>
<td>0% 0% 0%</td>
</tr>
<tr>
<td></td>
<td>Non-disclosed</td>
<td>-10%</td>
<td>-5% -10% -30%</td>
</tr>
<tr>
<td>9th Decile</td>
<td>Disclosed</td>
<td>-10%</td>
<td>-5% -10% -30%</td>
</tr>
<tr>
<td></td>
<td>Non-disclosed</td>
<td>-20%</td>
<td>-10% -20% -60%</td>
</tr>
<tr>
<td>10th Decile</td>
<td>Disclosed</td>
<td>-20%</td>
<td>-10% -20% -60%</td>
</tr>
<tr>
<td></td>
<td>Non-disclosed</td>
<td>-30%</td>
<td>-15% -30% -90%</td>
</tr>
</tbody>
</table>

3. Finally, the weights calculated in step 2 are adjusted to ensure each industry group’s weights sum to 100%, as follows:
   - If the sum of the weights after step 2 is greater than 100% then the first of the following steps capable of reducing the sum of the weights to 100% is performed:
     - Proportionally reduce the weights of stocks only in deciles 8 to 10
     - Proportionally reduce the weights of stocks only in deciles 7 to 10
     - Proportionally reduce the weights of stocks only in deciles 6 to 10
     - Proportionally reduce the weights of all stocks
   - If the sum of the weights after step 2 is less than 100% then the first of the following steps capable of increasing the sum of the weights to 100% is performed:
     - Proportionally increase the weights of stocks only in deciles 1 to 3
     - Proportionally increase the weights of stocks only in the 4th decile
     - Proportionally increase the weights of stocks only in the 5th decile
     - Proportionally increase the weights of all stocks

### Capped Indices

The S&P South Africa Domestic Carbon Efficient Capped (DSW) Index is a variation of the S&P South Africa Domestic Carbon Efficient (DSW) Index, where no single stock weighs more than 10% of the index at each rebalancing. The index is re-weighted quarterly effective at the open of the Monday following the third Friday in March, June, September and December. The price reference date used for weighting is the Wednesday before the second Friday of the re-weighting month.

### Controversies Monitoring

Companies within the indices are monitored on a daily basis by RepRisk, a leading provider of business intelligence on environmental, social, and governance risks. RepRisk analyzes companies for related controversies, including a range of issues such as economic crime and corruption, fraud, illegal commercial practices, human rights issues, labor disputes, workplace safety, catastrophic accidents, and environmental disasters. Using this data, each company is assigned a daily RepRisk Index (RRI) indicator. A company is defined as a risk if their RRI indicator is equal to or above 75.

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6 1st decile classification represents companies with the lowest carbon-to-revenue footprint.
7 ‘Other’ refers to those companies in the index classified in deciles 4 to 7 and/or those without coverage by Trucost.
8 The controversies monitoring process began March 2017.
If a company is reported by RepRisk to have violated the RRI indicator threshold of 75, the impacted company will be removed with a minimum of two business days’ notice on a best efforts basis from when S&P Dow Jones Indices is notified of the violation. A company removed as a risk will only be considered for addition to the index on any future rebalancing date when it satisfies all the eligibility criteria and its RRI score has remained below 75 on all days since the previous year’s rebalancing date.

For more information on RepRisk, please refer to [www.reprisk.com](http://www.reprisk.com). This service is not considered a direct contribution to the index construction process.

**Multiple Classes of Stock**

All publicly listed multiple share class lines are eligible for index inclusion, subject to meeting the eligibility criteria. For more information regarding the treatment of multiple share classes, please refer to Approach A within the Multiple Share Classes section of the S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology. In the S&P Carbon Efficient Index Series, all multiple share class lines are assigned identical Carbon-to-Revenue Footprint Scores. All weight assignments are conducted at the company level.

**Index Calculations**

The indices are calculated by means of the divisor methodology used in all S&P Dow Jones Indices’ equity indices.

For more information on the index calculation methodology, please refer to the Non-Market Capitalization Weighted Indices section of S&P Dow Jones Indices’ Index Mathematics Methodology.
Index Maintenance

Rebalancing

The indices are rebalanced annually, effective after the close of the third Friday of March. The rebalancing reference date, and the reference universe for constituent selection, is the third Friday of February.

Constituents' weights are calculated using closing prices on the rebalancing reference date. Index share amounts are calculated using closing prices on the Wednesday prior to the second Friday of the rebalancing month (reference prices) and are assigned to each stock to arrive at the weights determined on the rebalancing reference date. Since index shares are assigned based on the reference prices, the actual weight of each stock at the rebalancing differs from these weights due to market movements.

Carbon-to-Revenue Footprint Updates

Each company's Carbon-to-Revenue Footprint is researched annually, approximately eight months following the company's fiscal year end. Carbon-to-revenue footprints are updated on an as-needed basis following corporate events (mergers and acquisitions, spin-offs, etc.) and underlying data point revisions. Any update to a company's Carbon-to-Revenue Footprint is applied at the subsequent annual rebalancing.

Additions and Deletions

Additions. Index additions are generally made only during the annual rebalancing. Spin-offs, however, may necessitate the addition of the spun-off company to the index. The spun-off company is added to all the indices of which the parent is a constituent at a zero price at the market close of the day before the ex-date (with no divisor adjustment). If the spun-off company is to remain in the parent universe index, it will subsequently remain in the corresponding Carbon Efficient Index. If the spun-off company is removed from the parent universe index after at least one day of regular way trading (with a divisor adjustment), the corresponding Carbon Efficient Index will follow the same treatment.

Deletions. Index constituents may be removed from the index following a takeover, merger, delisting, bankruptcy, indefinite suspension or if dropped from the respective underlying index.

In the event that an index constituent is removed from an underlying index, it is also removed from the respective Carbon Efficient Index and not replaced.

A constituent flagged by the controversies overlay process may also be removed if the Index Committee determines that the company in question is no longer eligible for index inclusion.

Corporate Actions

The indices are reviewed on an ongoing basis to account for corporate events such as mergers, takeovers, delistings, suspensions, spin-offs/demergers or bankruptcies. Changes to index composition and related weight adjustments are made as soon as they are effective. These changes are typically announced one to five business days prior to the implementation date.

For more information on Corporate Actions, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices document.
Mergers and Acquisitions. In cases of mergers involving two index constituents, the merged company deemed to be the acquirer in the transaction remains in the index, provided it meets all eligibility requirements. If the acquisition payment type is stock-based, the acquirer’s index shares increase proportionately to the terms of the transaction. If the acquisition payment type is not stock-based, the acquirer’s index shares remain at pre-merger levels.

Ongoing Maintenance

Specific changes to index constituents, such as share changes, Investable Weight Factor (IWF) changes, dividend distributions, and price adjustments, follow the policies of the underlying index.

For more information on Share Updates, Float Adjustment and IWFs, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices and Float Adjustment Methodology documents.

Currency of Calculation and Additional Index Return Series

The indices are calculated in U.S. dollars, Japanese yen, and the respective local currency for the regional indices.

WM/Reuters foreign exchange rates are taken daily at 04:00 PM London Time and used in the end-of-day calculation of the indices. These mid-market fixings are calculated by The WM Company based on Reuters data and appear on Reuters pages WMRA.

In addition to the indices detailed in this methodology, additional return series versions of the indices may be available, including, but not limited to: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to S&P DJI’s All Indices by Methodology Report.

For information on the calculation of different types of indices, please refer to S&P Dow Jones Indices’ Index Mathematics Methodology.

Base Date and History Availability

Index history availability, base dates and base values are shown in the table below.

<table>
<thead>
<tr>
<th>Index</th>
<th>Launch Date</th>
<th>First Value Date</th>
<th>Base Date</th>
<th>Base Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Global LargeMidCap Carbon Efficient</td>
<td>07/17/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P Global Ex-Japan LargeMidCap Carbon Efficient</td>
<td>07/17/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P Developed LargeMidCap Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P Emerging LargeMidCap Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P Europe LargeMidCap Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P North America LargeMidCap Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P Asia Pacific LargeMidCap Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P Latin America LargeMidCap Carbon Efficient</td>
<td>01/22/2019</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P Global 1200 Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P 500 Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P 400 Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P 600 Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P Europe 350 Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P China A Carbon Efficient</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P South Africa Domestic Carbon Efficient (DSW)</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
<tr>
<td>S&amp;P South Africa Domestic Carbon Efficient Capped (DSW)</td>
<td>10/22/2018</td>
<td>03/20/2009</td>
<td>03/20/2009</td>
<td>100</td>
</tr>
</tbody>
</table>
Index Data

Calculation Return Types

S&P Dow Jones Indices calculates multiple return types which vary based on the treatment of regular cash dividends. The classification of regular cash dividends is determined by S&P Dow Jones Indices.

- Price Return (PR) versions are calculated without adjustments for regular cash dividends.
- Gross Total Return (TR) versions reinvest regular cash dividends at the close on the ex-date without consideration for withholding taxes.
- Net Total Return (NTR) versions, if available, reinvest regular cash dividends at the close on the ex-date after the deduction of applicable withholding taxes.

In the event there are no regular cash dividends on the ex-date, the daily performance of all three indices will be identical.

For a complete list of indices available, please refer to the daily index levels file (".SDL").

For more information on the classification of regular versus special cash dividends as well as the tax rates used in the calculation of net return, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

For more information on the calculation of return types, please refer to S&P Dow Jones Indices’ Index Mathematics Methodology.
Index Governance

Index Committee

Except for the S&P/JPX Carbon Efficient, the S&P Carbon Efficient Indices are managed by S&P Dow Jones Indices’ Global Strategy Index Committee. The committee meets regularly. At each meeting, the Index Committee reviews pending corporate actions that may affect index constituents, statistics comparing the composition of the index to the market, companies that are being considered as candidates for addition to the index, and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

S&P Dow Jones Indices considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

S&P Dow Jones Indices’ Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.
Index Policy

Announcements

All index constituents are evaluated daily for data needed to calculate index levels and returns. All events affecting the daily index calculation are typically announced in advance via the Index Corporate Events report (.SDE), delivered daily to all clients. Any unusual treatment of a corporate action or short notice of an event may be communicated via email to clients.

Pro-forma Files

In addition to the corporate events file (.SDE), S&P Dow Jones Indices provides constituent pro-forma files each time the indices rebalance. The pro-forma file is typically provided daily in advance of the rebalancing date and contains all constituents and their corresponding weights and index shares effective for the upcoming rebalancing.

Please visit www.spdji.com for a complete schedule of rebalancing timelines and pro-forma delivery times.

Holiday Schedule

The indices are calculated daily, throughout the calendar year. The only days an index is not calculated are on days when all exchanges where an index’s constituents are listed are officially closed or if WM/Reuters’ exchange rates services are not published.

A complete holiday schedule for the year is available at www.spdji.com.

Rebalancing

The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

Unexpected Exchange Closures

For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

Recalculation Policy

For information on the recalculation policy, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

Contact Information

For any questions regarding an index, please contact index_services@spglobal.com.
Index Dissemination

Index levels are available through S&P Dow Jones Indices’ Web site at www.spdji.com, major quote vendors, numerous investment-oriented Web sites, and various print and electronic media.

Index Data

Daily constituent and index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, www.spdji.com/contact-us.

Website

For further information, please refer to S&P Dow Jones Indices’ Web site at www.spdji.com.
Appendix A

Trucost Methodology

Trucost has analyzed the environmental performance of over 4,200 companies worldwide. Trucost has the world’s largest bank of standardized greenhouse gas (“GHG”) emissions data, which provides a proxy for carbon performance. To calculate the carbon intensity of any company included in the indices, Trucost reviews company annual reports and accounts, environmental/sustainability reports, public disclosures and corporate Web sites.

However, many companies do not disclose their environmental or carbon impacts. Where there is no public disclosure, Trucost employs its environmental profiling system. This proprietary Input-Output model maps the GHG impacts of business activities in 464 sectors. Trucost’s broad coverage seeks to ensure that all non-disclosing companies are considered for index eligibility, not just those that disclose environmental information.

Six greenhouse gases (GHGs) are included in the analysis; these are all the GHGs regulated under the Kyoto protocol. Each gas has a different capacity to cause global warming. Although carbon dioxide (“CO₂”) is the least potent of the GHGs, it is one of the most prevalent in terms of man-made emissions. The GHGs are calculated for each company and converted into tons of carbon dioxide equivalents based on the appropriate Global Warming Potential factors. The Global Warming Potential (“GWP”) index, published by the Intergovernmental Panel on Climate Change (“IPCC”), assesses the effect of the emissions of different gases over a 100-year time period, relative to the emission of an equal mass of CO₂. GWP enables all the GHGs to be expressed in terms of CO₂ equivalents, or CO₂e, and is used as the basis for the analysis and for index calculation.

Quantities of greenhouse gas emissions are, then, normalized by sales to calculate the company’s carbon footprint, or “carbon intensity”. The smaller the carbon footprint, the less investments contribute to climate change and the lower an index’s exposure to the rising costs of emitting carbon dioxide.
Appendix B

Methodology Changes

Methodology changes since July 17, 2018 are as follows:

<table>
<thead>
<tr>
<th>Change</th>
<th>Effective Date (After Close)</th>
<th>Previous Methodology</th>
<th>Updated Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity Screen for Non-Constituents Domiciled in India</td>
<td>3/20/2020</td>
<td>Non-constituents domiciled in India that trade on the BSE are, as of the rebalancing reference date, subject to a liquidity screen based on their three-month median daily value traded from the BSE.</td>
<td>Non-constituents domiciled in India that trade on the BSE are, as of the rebalancing reference date, subject to a liquidity screen based on their aggregate three-month median daily value traded from both the BSE and NSE.</td>
</tr>
<tr>
<td>Mergers and Acquisitions</td>
<td>10/23/2018</td>
<td>In cases of mergers involving two index constituents, the merged company deemed to be the acquirer in the transaction remains in the index, provided it meets all eligibility requirements. The acquirer’s index shares remain at pre-merger levels.</td>
<td>In cases of mergers involving two index constituents, the merged company deemed to be the acquirer in the transaction remains in the index, provided it meets all eligibility requirements. If the acquisition payment type is stock-based, the acquirer’s index shares increase proportionately to the terms of the transaction. If the acquisition payment type is not stock-based, the acquirer’s index shares remain at pre-merger levels.</td>
</tr>
</tbody>
</table>
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