# Table of Contents

## Introduction
- Index Objective and Highlights 3
- Index Series 3
- Supporting Documents 3

## Eligibility Criteria and Index Construction
- Index Universe 4
- Multiple Classes of Stock 4
- Constituent Weightings 5
- Carbon-to-Revenue Footprint Data 5
- Index Calculations 5

## Index Maintenance
- Rebalancing 6
- Additions and Deletions 6
- Controversies: Media and Stakeholder Analysis Overlay 6
- Currency of Calculation and Additional Index Return Series 7
- Corporate Actions 7
- Other Adjustments 7
- Base Date and History Availability 7

## Index Data
- Calculation Return Types 8

## Index Governance
- Index Committee 9

## Index Policy
- Announcements 10
- Pro-forma Files 10
- Holiday Schedule 10
- Rebalancing 10
- Unexpected Exchange Closures 10
- Recalculation Policy 10
- Contact Information 11

## Index Dissemination
- Tickers 12
Introduction

Index Objective and Highlights

The S&P Carbon Efficient Select Index Series measures the performance of companies with relatively low greenhouse gas emissions in their respective underlying index by excluding those companies with the largest relative carbon-to-revenue footprints. Constituents’ weights are optimized in order to minimize expected tracking error versus the underlying index.

Index Series

The series contains the following indices:

- S&P 500 Carbon Efficient Select Index
- S&P Europe 350 Carbon Efficient Select Index

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>Index Mathematics Methodology</td>
</tr>
<tr>
<td>S&amp;P Dow Jones Indices’ Float Adjustment Methodology</td>
<td>Float Adjustment Methodology</td>
</tr>
<tr>
<td>S&amp;P Dow Jones Indices’ Global Industry Classification Standard (GICS) Methodology</td>
<td>GICS Methodology</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

Index Universe

At each 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 500 Carbon Efficient Select Index</td>
<td>S&amp;P 500</td>
</tr>
<tr>
<td>S&amp;P Europe 350 Carbon Efficient Select Index¹</td>
<td>S&amp;P Europe 350</td>
</tr>
</tbody>
</table>

For more information on an underlying index, please refer to its respective methodology document available at www.spglobal.com/spdji.

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.

Constituent Selection. At each respective index rebalancing, rank the eligible companies in each GICS Sector by carbon-to-revenue footprint. Remove the highest ranked 20% (by constituent count) of companies in the underlying index, provided the removals do not reduce the sector’s weight in the underlying index by more than 50%. In cases where a company doesn’t have carbon-to-revenue data, the company receives a 0 score for ranking purposes.

Selection Scenarios.

1. If the removal of a given company reduces the sector weight beyond the 50% sector weight threshold, but not more than 55%, the company is excluded.

2. If the next company’s exclusion is in a sector which already exceeds the 50% threshold or reduces the weight beyond 55%, the company is not excluded and remains eligible for inclusion.

Select the remaining eligible constituents for the respective index and then optimize to generate a final list of no more than 75% of the number of companies in the underlying index, with assigned weights intended to limit the tracking error versus the underlying index. This may result in the removal of companies where the weight is de minimis.

For more information on GICS, please refer to S&P Dow Jones Indices’ GICS Methodology.

¹ The index is used as the underlying index for the S&P Europe 350 Carbon Efficient Select Low Volatility Index.
Constituent Weightings

**Constituent List Optimization.** At each rebalancing, no single constituent can have an index weight of less than 0.015% or more than 5% of the total index weight. Constituents are optimized using Northfield Information Service’s optimization algorithm(s). The table below shows the corresponding risk models for each index and the final maximum number of constituents per index allowed by the optimization algorithm(s).

<table>
<thead>
<tr>
<th>Underlying Index</th>
<th>Northfield Fundamental Risk Model</th>
<th>Max. # of Companies After Optimization</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500</td>
<td>U.S.</td>
<td>375</td>
</tr>
<tr>
<td>S&amp;P EUROPE 350</td>
<td>Europe</td>
<td>262</td>
</tr>
</tbody>
</table>

For more information on the risk model, please visit [www.northinfo.com](http://www.northinfo.com).

**Carbon-to-Revenue Footprint Data**

The carbon-to-revenue footprint data used in the methodology is calculated by S&P Trucost Limited ("Trucost") and is defined as the company’s annual greenhouse gas (GHG) emissions (direct and first tier indirect), expressed as metric tons of carbon dioxide equivalent (tCO₂e) emissions, divided by annual revenues for the corresponding year, expressed in millions of US dollars. The most recently available year of carbon-to-revenue footprint data as at each rebalancing is used. Trucost’s annual research process evaluates the environmental performance of a given company with one output of this process being its annual greenhouse gas emissions profile.

**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 quarterly rebalancing.

For information on Trucost’s methodology, please refer [here](http://www.northinfo.com).

**Index Calculations**

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

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

Rebalancing

The indices rebalance quarterly, effective after the close on the third Friday of March, June, September, and December. The rebalancing reference dates are the third Friday of February, May, August, and November, respectively. Constituents’ weights are calculated using closing prices on the Wednesday prior to the second Friday of the rebalancing month as the reference price. Index share amounts are calculated and assigned to each stock to arrive at the weights determined on the 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.

Additions and Deletions

Additions. Except for spin-offs, index additions are generally made only during rebalancings.

Spin-offs. A spin-off 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 underlying index, it remains in the index. If the spun-off company is removed from the underlying index after at least one day of regular way trading (with a divisor adjustment), it is removed from the index.

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

In the event that an index constituent is removed from the underlying index, it is also removed from the index and not replaced. As a result, the components of the index may differ slightly from those of the underlying index.

A constituent flagged by S&P Global’s MSA will be removed if the Index Committee determines that the company in question is no longer eligible for index inclusion.

Controversies: Media and Stakeholder Analysis Overlay

In addition to the above, S&P Global uses RepRisk, a data science company, for daily filtering, screening, and analysis of ESG risk incidents and controversial activities related to companies within the indices.

In cases where risks are presented, S&P Global releases a Media and Stakeholder Analysis (MSA), which includes 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.

The Index Committee reviews constituents flagged for an environmental issue by MSA to evaluate the potential impact of controversial company activities on the composition of the indices. If the Index Committee decides to remove a company in question, that company is ineligible for re-entry into the indices for one full calendar year, beginning with the subsequent rebalancing.

---

2 RepRisk, an ESG data science company, leverages the combination of AI and machine learning with human intelligence to systematically analyze public information in 23 languages and identify material ESG risks. With daily data updates across 100+ ESG risk factors, RepRisk provides consistent, timely, and actionable data for risk management and ESG integration across a company’s operations, business relationships, and investments.
For more information on RepRisk, please refer to www.reprisk.com. This service is not considered a direct contribution to the index construction process.

Currency of Calculation and Additional Index Return Series

The indices calculate in U.S. dollars.

WM/Refinitiv foreign exchange rates are taken daily at 4:00 PM London time and used in the calculation of the indices. These mid-market fixings are calculated by the WM Company based on Refinitiv data and appear on Refinitiv 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 the following: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to the S&P DJI Methodology & Regulatory Status Database.

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

For the inputs necessary to calculate certain types of indices, including decrement, dynamic hedged, fair value, and risk control indices, please refer to the Parameters documents available at www.spglobal.com/spdji.

Corporate Actions

For general information on Corporate Actions, please refer to Non-Market Capitalization Indices section of S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.

Other Adjustments

In cases where there is no achievable market price for a stock being deleted, it can be removed at a zero or minimal price at the Index Committee’s discretion, in recognition of the constraints faced by investors in trading bankrupt or suspended stocks.

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 Europe 350 Carbon Efficient Select Index</td>
<td>08/28/2015</td>
<td>12/19/2008</td>
<td>12/19/2008</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

An S&P Dow Jones Indices Index Committee maintains the indices. The Index Committee meets regularly. All committee members are full-time professional members of S&P Dow Jones Indices’ staff. At each meeting, the Index Committee reviews pending corporate actions that may affect index constituents, statistics comparing the composition of the indices to the market, companies that are being considered as candidates for addition to an 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.

For more information, please refer to the Announcements section of S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

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 as well as their corresponding weights and index shares effective for the upcoming rebalancing. Since index shares are assigned based on prices prior to the rebalancing, the actual weight of each stock at the rebalancing differs from these weights due to market movements.

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

Holiday Schedule

The index calculates daily, throughout the calendar year. The only days the index is not calculated are on days when all exchanges where the index's constituents are listed are officially closed.

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

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 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.spglobal.com/spdji](http://www.spglobal.com/spdji), major quote vendors (see codes below), numerous investment-oriented Web sites, and various print and electronic media.

**Tickers**

The table below lists headline indices covered by this document. All versions of the below indices that may exist are also covered by this document. Please refer to the *S&P DJI Methodology & Regulatory Status Database* for a complete list of indices covered by this document.

<table>
<thead>
<tr>
<th>Index (Currency)</th>
<th>Return Type</th>
<th>Bloomberg</th>
<th>RIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500 Carbon Efficient Select Index (USD)</td>
<td>Price Return</td>
<td>SPGRCUU</td>
<td>.SPGRCUU</td>
</tr>
<tr>
<td></td>
<td>Total Return</td>
<td>SPGRCUUT</td>
<td>.SPGRCUUT</td>
</tr>
<tr>
<td></td>
<td>Net Total Return</td>
<td>SPGRCUUN</td>
<td>.SPGRCUUN</td>
</tr>
</tbody>
</table>

**Index Data**

Daily constituent and index level data are available via subscription.


**Web site**

*For further information, please refer to S&P Dow Jones Indices’ Web site at [www.spglobal.com/spdji](http://www.spglobal.com/spdji).*
## Appendix – Methodology Changes

### Methodology Changes

Methodology changes since January 1, 2015, 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>Rebalancing Reference Dates</td>
<td>09/15/2017</td>
<td>The rebalancing reference dates are the last business day of February, May, August, and November, respectively.</td>
<td>The rebalancing reference dates are the third Friday of February, May, August, and November, respectively.</td>
</tr>
<tr>
<td>Intra-rebalancing Drop Treatment</td>
<td>09/16/2016</td>
<td>Companies involved in environmental crisis situations are not dropped from the index between rebalancings.</td>
<td>Any constituent raised as an environmental Media and Stakeholder Analysis (MSA) case by S&amp;P Global will be brought to the governing Index Committee for possible immediate removal. In the event of removal, the constituent in question would not be eligible for re-entry into the index for one year beginning with the subsequent rebalancing.</td>
</tr>
<tr>
<td>Rebalancing Reference Date</td>
<td>11/30/2015</td>
<td>The index uses a forward-looking S&amp;P 500 and S&amp;P Europe 350 baskets to determine the selection universe.</td>
<td>The selection universe is as of the last business day of the month prior to the rebalancing month.</td>
</tr>
<tr>
<td>Treatment of Spin-Offs</td>
<td>11/30/2015</td>
<td>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). The spun-off company will be removed after at least one day of regular way trading (with a divisor adjustment).</td>
<td>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 Select 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 Select Index will follow the same treatment.</td>
</tr>
<tr>
<td>Treatment of Spin-Offs</td>
<td>09/30/2015</td>
<td>Spin-offs are generally not added to these indices and there is no weight change to the parent stock. The price of the parent company is adjusted to the Price of the Parent Company minus (the Price of the Spun-off Company/Share Exchange Ratio). Index shares change so that the company’s weight remains the same as its weight before the spin-off. There is no index divisor change. However, when the price of the spin-off is not known, the spin-off company is added to the index at a zero price. Once the spin-off company trades, the company is dropped from the index and the parent’s index shares are adjusted so that the company’s weight remains the same as the combined weight of parent and the spin-off, determined on the first day of trading.</td>
<td>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). The spun-off company will be removed after at least one day of regular way trading (with a divisor adjustment).</td>
</tr>
<tr>
<td>Change</td>
<td>Effective Date (After Close)</td>
<td>Previous Methodology</td>
<td>Updated Methodology</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------------------------------</td>
<td>-----------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Index Name</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Disclaimer

Performance Disclosure/Back-Tested Data

Where applicable, S&P Dow Jones Indices and its index-related affiliates ("S&P DJI") defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index’s Launch Date are considered back-tested. S&P DJI defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company’s public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed “Date of introduction”) is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index’s public release date.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index’s launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate certain ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using “Backward Data Assumption” (or pulling back) of ESG data for the calculation of back-tested historical performance. “Backward Data Assumption” is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as “product involvement”) were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on “Backward Data Assumption” please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific
data points and relevant time period for which backward projected data was used. Index returns shown do not represent the results of actual trading of investable assets/securities. S&P DJI maintains the index and calculates the index levels and performance shown or discussed but does not manage any assets.

Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US $100,000 investment for a 12-month period (or US $10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US $1,650), the net return would be 8.35% (or US $8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US $5,375, and a cumulative net return of 27.2% (or US $27,200).

Intellectual Property Notices/Disclaimer

© 2023 S&P Dow Jones Indices. All rights reserved. S&P, S&P 500, SPX, SPY, The 500, US500, US 30, S&P 100, S&P COMPOSITE 1500, S&P 400, S&P MIDCAP 400, S&P 600, S&P SMALLCAP 600, S&P GIVI, GLOBAL TITANS, DIVIDEND ARISTOCRATS, Select Sector, S&P MAESTRO, S&P PRISM, S&P STRIDE, GICS, SPIVA, SPDR, INDEXOLOGY, iTraxx, iBoxx, ABX, ADBI, CDX, CMX, MBX, MCDX, PRIMEX, HHPI, and SOVX are registered trademarks of S&P Global, Inc. (“S&P Global”) or its affiliates. DOW JONES, DJIA, THE DOW and DOW JONES INDUSTRIAL AVERAGE are trademarks of Dow Jones Trademark Holdings LLC (“Dow Jones”). These trademarks together with others have been licensed to S&P Dow Jones Indices LLC. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. This document does not constitute an offer of services in jurisdictions where S&P DJI does not have the necessary licenses. Except for certain custom index calculation services, all information provided by S&P DJI is impersonal and not tailored to the needs of any person, entity, or group of persons. S&P DJI receives compensation in connection with licensing its indices to third parties and providing custom calculation services. Past performance of an index is not an indication or guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be available through investable instruments based on that index. S&P DJI does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P DJI makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P DJI is not an investment advisor, commodity trading advisor, fiduciary, "promoter" (as defined in the Investment Company Act of 1940, as amended) or “expert" as enumerated within 15 U.S.C. § 77k(a), and S&P DJI makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. S&P DJI is not a tax advisor. Inclusion of a security, commodity, crypto currency, or other asset within an index is not a recommendation by S&P DJI to buy, sell, or hold such security, commodity, crypto currency, or other asset, nor is it considered to be investment or trading advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof (“Content”) may be modified, reverse engineered, reproduced, or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P DJI. The Content shall not be used for any unlawful or unauthorized purposes. S&P DJI and its third-party data providers and licensors (collectively “S&P Dow Jones Indices Parties”) do not guarantee the accuracy, completeness, timeliness, or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN “AS IS” “WHERE IS” BASIS. S&P DOW JONES INDICES PARTIES DISCLAIMS ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF
Credit-related information and other analyses, including ratings, research and valuations are generally provided by licensors and/or affiliates of S&P Dow Jones Indices, including but not limited to S&P Global’s other divisions such as S&P Global Market Intelligence. Any credit-related information and other related analyses and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. Any opinion, analyses and rating acknowledgement decisions are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P Dow Jones Indices does not assume any obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P DJI does not act as a fiduciary or an investment advisor. While S&P DJI has obtained information from sources it believes to be reliable, S&P DJI does not perform an audit or undertake independent verification of any information it receives. S&P DJI reserves the right to vary or discontinue any index at any time for regulatory or other reasons. Various factors, including external factors beyond S&P DJI’s control might necessitate material changes to indices.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P Global Ratings reserves the right to assign, withdraw or suspend such acknowledgement at any time and in its sole discretion. S&P Dow Jones Indices, including S&P Global Ratings, disclaim any duty whatsoever arising out of the assignment, withdrawal, or suspension of an acknowledgement as well as any liability for any damage alleged to have been suffered on account thereof. Affiliates of S&P Dow Jones Indices LLC, including S&P Global Ratings, may receive compensation for its ratings and certain credit-related analyses, normally from issuers or underwriters of securities or from obligors. Such affiliates of S&P Dow Jones Indices LLC, including S&P Global Ratings, reserve the right to disseminate its opinions and analyses. Public ratings and analyses from S&P Global Ratings are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription), and may be distributed through other means, including via S&P Global Ratings publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.

S&P Global keeps certain activities of its various divisions and business units separate from each other to preserve the independence and objectivity of their respective activities. As a result, certain divisions and business units of S&P Global may have information that is not available to other business units. S&P Global has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions, and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate, or otherwise address.

Some indices use the Global Industry Classification Standard (GICS®), which was developed by, and is the exclusive property and a trademark of, S&P Global and MSCI. Neither MSCI, S&P DJI nor any other party involved in making or compiling any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy,
completeness, merchantability, or fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P DJI, any of their affiliates or any third party involved in making or compiling any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

S&P Dow Jones Indices products are governed by the terms and conditions of the agreements under which they may be provided. A license is required from S&P Dow Jones Indices to display, create derivative works of and/or distribute any product or service that uses, is based upon and/or refers to any S&P Dow Jones Indices and/or index data.