

**S&P Dow Jones
Indices**

A Division of **S&P Global**

S&P High Yield Dividend Aristocrats *Methodology*

August 2019

Table of Contents

Introduction	3
Index Objective and Highlights	3
Supporting Documents	3
Eligibility Criteria	4
Index Eligibility	4
Multiple Share Classes	4
Index Construction	5
Approaches	5
Constituent Weightings	5
Index Calculations	5
Index Maintenance	6
Rebalancing Frequency	6
Monthly Dividend Review	6
Currency of Calculation and Additional Index Return Series	6
Index Adjustments	7
Base Date	7
Index Data	8
Calculation Return Types	8
Index Governance	9
Index Committee	9
Index Policy	10
Announcements	10
Pro-forma Files	10
Holiday Schedule	10
Rebalancing	10
Unexpected Exchange Closures	10
Recalculation Policy	10
Real-Time Calculation	11
Contact Information	11

Index Dissemination	12
Index Data	12
Web site	12
Index Alert	12
Appendix	13
Methodology Changes	13
Disclaimer	16

Introduction

Index Objective and Highlights

The S&P High Yield Dividend Aristocrats measures dividend yield-weighted performance of companies within the S&P Composite 1500 that have followed a policy of consistently increasing dividends every year for at least 20 years.

The index composition is reviewed once per year in January and constituent weights are updated quarterly. Constituents are weighted by indicated annual dividend yield, subject to modifications to ensure no stock represents more than 4% of the index weight and to enhance index basket liquidity. The index methodology incorporates minimum market capitalization and liquidity criteria, as well as buffers to reduce turnover at each rebalancing.

For information on the S&P Composite 1500, please refer to S&P Dow Jones Indices' U.S. Indices Methodology located on our Web site, www.spdji.com.

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:

Supporting Document	URL
S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology	Equity Indices Policies & Practices
S&P Dow Jones Indices' Index Mathematics Methodology	Index Mathematics Methodology
S&P Dow Jones Indices' Float Adjustment Methodology	Float Adjustment Methodology

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

Index Eligibility

To qualify for membership in the index, at each annual reconstitution, a stock must satisfy the following criteria:

1. Be a member of the S&P Composite 1500.
2. Have increased total dividend per share amount every year for at least 20 consecutive years.
3. Have a float-adjusted market capitalization (FMC) greater than or equal to US\$ 2 billion as of the rebalancing reference date (current constituents US\$ 1.5 billion).
4. Have an average daily value traded (ADVT) greater than or equal to US\$ 5 million for the three-months prior to the rebalancing reference date (current constituents US\$ 4 million).

Calendar years and ex-dates are used for the dividend analysis, with the data being reviewed every January. In situations where dividend payments deviate from the company's standard dividend payment cycle, S&P Dow Jones Indices will, at its discretion, allocate payments to the appropriate year in order to take a full cycle into account.

A dividend initiation or re-initiation does not count as a dividend increase. The initiation calendar year may include payment of all four quarterly dividends, or only one, two or three quarterly payments. Evaluations are made on a best-effort basis.

S&P Dow Jones Indices only considers cash dividend payments declared as regular by the paying company for index eligibility, selection, and weighting purposes. Cash dividend payments declared as special by the paying company, including recurring special cash dividends, are not considered. Gross cash dividend amounts, before any withholding tax, are used.

For spin-offs occurring after January 1, 2013, the yearly dividend increase history of the parent company is assigned to both the parent and spun-off company on the spin-off effective date. To determine annual dividend payments, the dividends of the parent and spun-off companies are combined until a full annual cycle of dividend payments is available for both post-spin-off companies. Subsequent dividend comparisons are based on the annual dividend amounts of each respective company. For merger and acquisition events, S&P Dow Jones Indices, at its discretion, may retain dividend history for newly formed entities from their predecessor companies.

Multiple Share Classes

Each company is represented once by the Designated Listing. For more information regarding the treatment of multiple share classes, please refer to Approach B within the Multiple Share Classes section of the S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Index Construction

Approaches

The index is calculated based on an indicated annual dividend yield weighting scheme.

Constituent Weightings

At each quarterly rebalancing, stocks are weighted based on indicated annual dividend yield, subject to modifications made to stock weights, if required, to reduce single stock concentration and enhance index basket liquidity, as follows:

- No stock can have a weight of more than 4% in the Index.
- The minimum initial portfolio size that can be turned over in a single day (based on recent trading volumes) cannot be lower than US\$ 2 billion.

Basket liquidity capping sets a minimum portfolio size of US\$ 2 billion that must be turned over in a single day, based on the historical average value-traded pattern. The maximum weight parameter is the maximum weight of each stock at the rebalancing. These parameters can be changed depending upon market circumstances.

1. With data reflected on the rebalancing reference date, each company is weighted by indicated annual dividend yield.
2. If any company has a weight greater than 4% (where 4% is the maximum weight allowed in the index), that company has its weight capped at 4%.
3. All excess weight is proportionally redistributed to all uncapped stocks within the index.
4. After this redistribution, if the weight of any other stock(s), then, breaches 4%, the process is iterated until there are no stocks breaching the 4% weight limit.
5. A basket liquidity maximum weight (*BL*) for each company is, then, determined by dividing the US\$ three-month ADVT by the basket liquidity amount (US\$ 2 billion). This weight is the maximum weight allowed for each stock in the index.
6. If any company has a weight greater than its *BL* maximum weight, that company will have its weight reduced to its *BL* maximum weight.
7. All excess weight is proportionally redistributed to all uncapped stocks within the index.
8. If, after this redistribution, the weight of any other stock(s) in the index exceeds its *BL* maximum weight, the process is iterated until no stock breaches its *BL* maximum weight.

The basket liquidity and maximum weight constraints are subject to change based on market conditions. If the basket liquidity rule cannot be satisfied for all index constituents after all possible iterations are completed, one or more of these constraints may be changed to ensure that the constraint is satisfied for all constituents.

Index Calculations

The index is calculated by means of the divisor methodology used for all S&P Dow Jones equity indices.

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

Index Maintenance

Rebalancing Frequency

The index undergoes a major reconstitution once a year in January, coinciding with the annual review of the qualifying universe. The reference date for such additions and deletions is after the closing of the last trading date of December. Index constituent changes occur after the closing of the last business day of January. Minor quarterly rebalancings occur in April, July and October. Index constituent weight adjustments occur after the closing of the last business days of January, April, July and October, based on indicated yield as defined in the *Constituent Weightings* section of the methodology.

The rebalancing effective date is after the close of the last business day of the rebalancing month. The reference date for indicated yield, float-adjusted market capitalization and ADVT is the close of the month prior to the rebalancing month.

At each rebalancing, stocks are weighted and assigned index shares using the closing prices as of five business days prior to the last business day of the rebalancing month as the reference price. Since index shares are assigned based on prices prior to the rebalancing, the actual weight of each stock at the rebalancing differs from the target equal weights due to market movements.

Additions. No additions are made to the index between annual reconstitutions, except in the case of a spin-off, as detailed below.

Deletions. Constituents removed from the qualifying universe between annual reconstitutions are removed from the index simultaneously.

Monthly Dividend Review

S&P Dow Jones Indices reviews index constituents on a monthly basis. If S&P Dow Jones Indices determines that an index constituent has eliminated or suspended its dividend, omitted a payment, or reduced its calendar year dividend amount and will no longer qualify for the index at the subsequent reconstitution, it will be removed from the index effective prior to the open of the first business day of the following month and not replaced until the following reconstitution. Any changes are announced five business days prior to month-end. The determination of qualifying for the index at the subsequent reconstitution is at the discretion of the Index Committee. The decision to remove an index constituent due to dividend elimination, suspension, omission, or reduction is based on information publicly announced by the company as of seven business days prior to month-end.

Currency of Calculation and Additional Index Return Series

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 index calculation, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.

Index Adjustments

Corporate Action	Adjustment Made to Index	Divisor Adjustment?
Spin-Off	Spin-offs are added to the index on the ex-date. If the spin-off remains in the underlying index (S&P Composite 1500), both the parent company and spin-off remain in the index until the next index rebalancing, provided that each gives an indication it will continue and/or initiate a consistent dividend paying policy. If the spin-off does not indicate it will continue and/or initiate a consistent dividend paying policy, it is removed from the index after the first day of regular way trading. If the spin-off does not announce its official dividend payment by the reference date of the subsequent quarterly rebalancing, the spin-off uses the parent company's additional weight factor.	Ex-date: No Removal date: Yes
Rights Offering	The price is adjusted to the Price of the Parent Company minus (the Price of the Rights Offering/Rights Ratio). Index shares change so that the company's weight remains the same as its weight before the rights offering.	No
Stock Split	Index shares are multiplied by and price is divided by the split factor.	No
Share Issuance or Share Repurchase	None. Actual shares outstanding of the company play no role in the daily index calculation.	No
Special Dividends	The price of the stock making the special dividend payment is reduced by the per share special dividend amount after the close of trading on the day before the dividend ex-date.	Yes
Delisting, acquisition or any other corporate action resulting in the deletion of the stock from the underlying index.	The stock is dropped from the index. This causes the weights of the rest of the stocks in the index to change proportionately.	Yes

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

Base Date

Daily returns are available from December 7, 1999. The base value for both the price return and total return series starting on that date is 1000.

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

The Americas Thematic and Strategy Index Committee maintains the index. The Committee meets regularly. At each meeting, the Index Committee may review 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. All methodology changes are posted to the S&P Dow Jones Indices' Web site and announced via email to all clients. The latest available version is posted on the Web site at www.spdji.com.

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 index rebalances. 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. Since index shares are assigned based on prices one week prior to the rebalancing, the actual weight of each stock at the rebalancing differs from these weights due to market movements.

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

Holiday Schedule

The index is calculated on all business days of the year when the U.S. equity market is open.

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.

Real-Time Calculation

Real-time, intra-day, index calculations are executed for the index, whenever any of its primary exchanges are open. Real-time indices are not restated.

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, www.spdji.com.

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.

Web site

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

Index Alert

Comprehensive index data is available through S&P Dow Jones Indices' fee-based service, SPICE, at www.spice-indices.com.

Appendix

Methodology Changes

Change	Effective Date (After Close)	Previous	
Dividend Review	04/19/2018	S&P Dow Jones Indices reviews index constituents on a monthly basis. If S&P Dow Jones Indices determines that an index constituent has eliminated or suspended its dividend, omitted a payment, or reduced its calendar year dividend amount and will no longer qualify for the index at the subsequent reconstitution, it will be removed from the index effective prior to the open of the first business day of the following month. The determination of qualifying for the index at the subsequent reconstitution is at the discretion of the Index Committee. The decision to remove an index constituent due to dividend elimination, suspension, omission, or reduction is based on information publicly announced by the company as of five business days prior to month-end.	S&P Dow Jones Indices reviews index constituents on a monthly basis. If S&P Dow Jones Indices determines that an index constituent has eliminated or suspended its dividend, omitted a payment, or reduced its calendar year dividend amount and will no longer qualify for the index at the subsequent reconstitution, it will be removed from the index effective prior to the open of the first business day of the following month and not replaced until the following reconstitution. Any changes are announced five business days prior to month-end. The determination of qualifying for the index at the subsequent reconstitution is at the discretion of the Index Committee. The decision to remove an index constituent due to dividend elimination, suspension, omission, or reduction is based on information publicly announced by the company as of seven business days prior to month-end.
Dividend Review	07/31/2018	At the discretion of S&P Dow Jones Indices, a company may be removed at a quarterly rebalancing if S&P Dow Jones Indices determines the company has reduced its calendar year dividend amount and will no longer qualify for the index at the subsequent annual reconstitution.	S&P Dow Jones Indices reviews index constituents on a monthly basis. If S&P Dow Jones Indices determines that an index constituent has eliminated or suspended its dividend, omitted a payment, or reduced its calendar year dividend amount and will no longer qualify for the index at the subsequent reconstitution, it will be removed from the index effective prior to the open of the first business day of the following month. The determination of qualifying for the index at the subsequent reconstitution is at the discretion of the Index Committee. The decision to remove an index constituent due to dividend elimination, suspension, omission, or reduction is based on information publicly announced by the company as of five business days prior to month-end.
Treatment of Spin-offs	09/30/2015	If the spin-off is not added to the underlying index (S&P Composite 1500), the weight of the parent company will not change. The price 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.	Spin-offs are added to the index on the ex-date. If the spin-off remains in the underlying index (S&P Composite 1500), both the parent company and spin-off remain in the index until the next index rebalancing, provided that each gives an indication it will continue and/or initiate a consistent dividend paying policy. If the spin-off does not indicate it will continue and/or initiate a consistent dividend paying policy, it is removed from the index after the first day of regular way trading.
Rebalancing Effective Date	12/31/2014	After close of the Third Friday of rebalancing month	After close of the last business day of rebalancing month

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Minor Rebalancing Deletions	07/22/2013	--	At the discretion of S&P Dow Jones Indices, a company may be removed at a quarterly rebalancing if S&P Dow Jones Indices determines the company has reduced its calendar year dividend amount and will no longer qualify for the index at the subsequent annual rebalancing.
Treatment of Spin-offs	01/01/2013	Spun-off companies are not added to the index. For future reconstitution purposes, the spun-off company does not have any dividend history prior to the spin-off effective date.	Spin-offs are added to the index if the spin-off is added to the underlying index (S&P Composite 1500), provided that the company gives an indication it will continue and/or initiate a consistent dividend paying policy. If the spin-off is not added to the underlying index or does not indicate it will continue and/or initiate a consistent dividend paying policy, it is not added. The yearly dividend increase history of the parent company is assigned to both the parent and spun-off company on the spin-off effective date. To determine annual dividend payments, the dividends of the parent and spun-off companies are combined until a full annual cycle of dividend payments is available for both post-spin-off companies. Subsequent dividend comparisons are based on the annual dividend amounts of each respective company.
Rebalancing Effective Months	07/02/2012	March, June, September, December	January, April, July, October
Reconstitution Effective Month	07/02/2012	December	January
Rebalancing Effective Date	07/02/2012	Close of the Fifth Business Day	Close of the Third Friday
Years of Dividend Increases to Qualify	07/02/2012	25	20
Number of Constituents at Rebalancing	07/02/2012	60	All Qualifying Constituents
Market Value Criteria	07/02/2012	Float Market Cap > US \$500 Million	Float Market Cap > US \$2 Billion
Constituent Capping	07/02/2012	The basket liquidity maximum weight for each company is determined by dividing the three-month ADVT by US\$ 1 Billion.	The basket liquidity maximum weight for each company is determined by dividing the three-month ADVT by US\$ 2 Billion.
Rebalancing Index Shares	07/02/2012	Index shares are calculated based on the close prices as of the month end date prior to the rebalancing month.	Index shares are calculated based on the close prices as of the second Friday of the rebalancing month.
Dividend Payment Types	12/01/2011	All payment types considered.	For index eligibility purposes, only regular dividend payments will be considered when determining the calendar year total dividend payments of a company. Special cash dividends will not be considered for eligibility purposes on a historical and on-going basis when determining the S&P High Yield Dividend Aristocrat Index universe.
Number of Index Constituents at Rebalancing	12/01/2010	50	60
Market Value Criteria	12/01/2010	Market Cap > US \$500 Million	Float Market Cap > US \$500 Million

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Universe	12/01/2010	<ol style="list-style-type: none"> 1) Universe is reviewed annually in December. 2) Must be a member of the S&P Composite 1500. 3) Minimum universe size is 75 stocks with 25 years of increasing dividend payments. 4) If the December review produces a list of fewer than 75 stocks in the qualifying universe, then S&P Composite 1500 constituents that have increased dividends every year for 20 years shall supplement the universe. 	<ol style="list-style-type: none"> 1) Universe is reviewed annually in December. 2) Must be a member of the S&P Composite 1500. 3) Minimum universe size is 80 stocks with 25 years of increasing dividend payments. 4) If the December review produces a universe of less than 80 qualifying stocks, the S&P Composite 1500 constituents with the longest period of consecutive increasing dividend payments, with preference based on indicated dividend yield, are added until there are 80 eligible companies.
Liquidity Criteria	12/01/2010	Twelve-month average trading volume greater than 1,500,000 shares.	Three-month ADVT above US\$ 5 million.
Major Rebalancing (December)	12/01/2010	Top 50 yielding companies in the universe that meet all eligibility requirements are selected as the index members.	Top 60 yielding companies in the universe that meet all eligibility requirements are selected as the index members.
Minor Rebalancings (March, June, September)	12/01/2010	Index constituents that rank lower than 60 based on indicated yield retain membership. If the remaining index members do not add up to 50 then qualifying stocks from the universe are added in order of decreasing dividend yield until the number of constituents reaches 50.	Index constituents that rank lower than 70 based on indicated yield retain membership. If the remaining index members do not add up to 60 then qualifying stocks from the universe are added in order of decreasing dividend yield until the number of constituents reaches 60.
Capping	12/01/2010	<ol style="list-style-type: none"> 1) Stocks are weighted according to their indicated yield. 2) No single stock will have a weight in the index of more than 4%. 3) No single stock will have its weight in the index greater than 5% of the stock's market cap in billions. <p>If either of these criteria is violated, the indicated yield used to evaluate the stock's weight is reduced by a fourth.</p>	<ol style="list-style-type: none"> 1) Stocks are weighted according to their indicated yield. 2) No single stock will have a weight in the index of more than 4%. 3) A basket liquidity maximum weight (BL) for each company is determined by dividing the US\$ three-month ADVT by the basket liquidity criteria (US\$ 1 billion). 4) If any company has a weight greater than its BL maximum weight, that company will have its weight reduced to its BL maximum weight.
Rebalancing Index Shares	12/01/2010	Index shares are calculated based on the reference weights and close prices as of the rebalancing date.	Index shares are calculated based on the close prices and reference weights as of the reference date (month end prior to rebalancing).

Disclaimer

Copyright © 2019 S&P Dow Jones Indices LLC. All rights reserved. STANDARD & POOR'S, S&P, S&P 500, S&P 500 LOW VOLATILITY INDEX, S&P 100, S&P COMPOSITE 1500, S&P MIDCAP 400, S&P SMALLCAP 600, S&P GIVI, GLOBAL TITANS, DIVIDEND ARISTOCRATS, S&P TARGET DATE INDICES, GICS, SPIVA, SPDR and INDEXOLOGY are registered trademarks of Standard & Poor's Financial Services LLC ("S&P"). DOW JONES, DJ, DJIA and DOW JONES INDUSTRIAL AVERAGE are registered 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 Dow Jones Indices LLC, S&P, Dow Jones or their respective affiliates (collectively "S&P Dow Jones Indices") do not have the necessary licenses. Except for certain custom index calculation services, all information provided by S&P Dow Jones Indices is impersonal and not tailored to the needs of any person, entity or group of persons. S&P Dow Jones Indices 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 Dow Jones Indices 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 Dow Jones Indices makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC is not an investment advisor, and S&P Dow Jones Indices 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. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other investment product or vehicle. S&P Dow Jones Indices LLC is not a tax advisor. A tax advisor should be consulted to evaluate the impact of any tax-exempt securities on portfolios and the tax consequences of making any particular investment decision. Inclusion of a security within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, nor is it considered to be investment 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 Dow Jones Indices. The Content shall not be used for any unlawful or unauthorized purposes. S&P Dow Jones Indices 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" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be

liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Global keeps certain activities of its various divisions and business units separate from each other in order 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 non-public 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.