

**S&P Dow Jones
Indices**

A Division of **S&P Global**

S&P Global Dividend Aristocrats *Methodology*

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Introduction

Index Objective

S&P Global Dividend Aristocrats® Index. The index measures the performance of 100 high dividend yielding companies within the S&P Global Broad Market Index (BMI) that have followed a managed-dividends policy of increasing or maintaining dividends for at least 10 consecutive years. Constituents are weighted by indicated dividend yield.

S&P International Dividend Aristocrats® Index. The index measures the performance of the non-U.S. companies within the S&P Global Dividend Aristocrats Index. Constituents are weighted by indicated dividend yield.

S&P Global Dividend Aristocrats® Quality Income Index. The index measures the performance of 100 high dividend yielding companies within the S&P Global BMI that have followed a managed-dividends policy of increasing or maintaining dividends for at least 10 consecutive years, and simultaneously have positive returns on equity and cash flows from operations. Constituents are weighted by indicated annual dividend yield subject to diversification and country exposure requirements as defined in Index Construction.

S&P Developed Ex-Korea Dividend Aristocrats® Quality Income Index. The index measures the performance of companies domiciled in developed markets, excluding South Korea, within the S&P Global Dividend Aristocrats Quality Income Index. Constituents are weighted by indicated annual dividend yield subject to the diversification and country exposure requirements defined in *Index Construction*.

For information on the S&P Global BMI eligibility criteria, please refer to the S&P Global BMI, S&P/IFCI Methodology available at 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
S&P Dow Jones Indices' Global Industry Classification Standard (GICS) Methodology	GICS Methodology
S&P Dow Jones Indices' Country Classification Methodology	Country Classification 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 index inclusion, a stock must first be a member of the S&P Global BMI.

Eligibility Factors

Market Capitalization. Stocks must have a float-adjusted market capitalization of at least US\$ 1 billion as of the rebalancing reference date.

Liquidity. Stocks must have an average daily value traded (ADVT) of at least US\$ 5 million for the three-months prior to the rebalancing reference date.

Multiple Share Classes. Each company is represented once by the listing with the highest dividend yield subject to meeting the eligibility criteria. In the event multiple lines meet the eligibility criteria and have similar dividend yields, the Designated Listing is selected.

For more information regarding the treatment of multiple share classes, please refer to Approach C within the Multiple Share Classes section of S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Stock Class. All common and ordinary shares are eligible. Preferred stocks and preference shares are not eligible.

Listing Venues. All local listings are eligible. However, companies domiciled in either Russia or India will have their local listing included in the index only if they have an ADR or GDR listing trading in a developed market meeting liquidity requirements.

All mainland China listed stocks are excluded from the index. However, any Hong-Kong listed shares included in the S&P Global BMI are eligible for inclusion.

Dividend Growth. Stocks must have increased dividends or maintained stable dividends every year for at least 10 consecutive years.

For spin-offs, the yearly dividend increase history of the parent company is assigned to both the parent and spun-off company before 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 the dividend history for newly formed entities from their predecessor companies.

Payout Ratio. Stocks must have a non-negative (greater than 0) dividend payout ratio. Non-current index components may have a maximum of 100% dividend payout ratio for addition to the index. A dividend payout ratio is considered negative when the annual Earnings Per Share (EPS) is negative.

The dividend payout ratio is calculated as the annual Dividend Per Share divided by the annual Earnings Per Share, using data from the last 12 months as of the rebalancing reference date (the last business day of December).

Dividend Yield. Stocks may have a maximum of 10% indicated dividend yield as of the rebalancing reference date. The cap aims to exclude companies whose dividends may not be sustainable over time, as well as companies whose stock prices have deteriorated rapidly.

Stock Diversification. At each rebalancing, the S&P Global Dividend Aristocrats Index and S&P Global Dividend Aristocrats Quality Income Index have 100 constituents, respectively.

If the number of eligible constituent stocks is fewer than the required number, then:

- The minimum float-adjusted market capitalization is lowered from US\$ 1 billion to US\$ 500 million. Those S&P Global BMI constituent stocks with a float-adjusted market capitalization above US\$ 500 million that also satisfy all other index eligibility criteria are added in decreasing order of dividend yield until the Stock Diversification Criteria are satisfied.
- If the Stock Diversification Criteria are still not satisfied, the S&P Global BMI constituent stocks with a history of increased or stable dividends for more than seven consecutive years, also satisfying all other index eligibility criteria, are added in decreasing order of dividend yield until the Stock Diversification Criteria are satisfied.

Dividend Payment Types

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. For both eligibility and weighting purposes, annualized cash dividend amounts, before withholding tax, are used.

S&P Global Dividend Aristocrats Quality Income Index Eligibility Factors

To be eligible a stock must satisfy all the eligibility factors above, plus the following additional criteria:

Return on Equity (ROE). Stocks must have positive ROE, where:

$$ROE = \frac{Earnings}{Book\ Value\ of\ Equity}$$

Earnings and Book Value of Equity use data from the last 12 months as of the rebalancing reference date (the last business day of December).

Cash Flow from Operations. All stocks must have positive cash flow from operations using data from the last 12 months as of the rebalancing reference date (the last business day of December) to be eligible, except for those classified within the Financials GICS Sector (40) which are exempt from this requirement.

Index Construction

Approaches

There are two steps in the construction of the indices. The first is the selection of the index constituents; the second is the weighting of the constituents within the index.

Constituent Selection

S&P Global Dividend Aristocrats Index. Stocks that pass the eligibility criteria form the Selection Universe. Stocks are then ranked based on their indicated dividend yield as of the rebalancing reference date. The 100 stocks with the highest indicated dividend yield are selected, with the number of stocks from each country capped at 20 and number of stocks from each sector capped at 35. If the number of stocks from a country reaches 20 or number of stocks from a sector reaches 35, the highest yielding stocks from other countries and/or sectors are selected until the number of index constituents reaches 100. Sectors are based on GICS.

S&P International Dividend Aristocrats Index. U.S. domiciled stocks are removed from the resulting S&P Global Dividend Aristocrats Index. The index will have a minimum of 80 constituents at each rebalancing.

S&P Global Dividend Aristocrats Quality Income Index. Stocks that pass the eligibility criteria are ranked based on their indicated dividend yield as of the rebalancing reference date. The 100 stocks with the highest indicated dividend yield are selected. No country or sector cap on the number of stocks is applied.

S&P Developed Ex-Korea Dividend Aristocrats Quality Income Index. Stocks domiciled in South Korea and countries classified as emerging markets are removed from the resulting S&P Global Dividend Aristocrats Quality Income Index.

For more information on country classifications, please refer to S&P Dow Jones Indices' Country Classification Methodology.

Constituents Weightings

In order to achieve a relatively high dividend yield, index constituents are weighted by indicated annual dividend yield. At each rebalancing, the weight for each index constituent is capped at 3%, and the weight of each country and GICS Sector is capped at 25%, respectively.

S&P Global Dividend Aristocrats Quality Income Index and S&P Developed Ex-Korea Dividend Aristocrats Quality Income Index. Index constituents are initially weighted by indicated annual dividend yield.

At each rebalancing, the weight for each index constituent is constrained between a cap of 3% and a floor of 0.05%. The weight of each GICS Sector is capped at 25%. This is done by using an optimization procedure that chooses final weights in such a way to minimize the sum of the squared difference of capped weight and uncapped weight, subject to the constraints.

The index weights are further capped to maintain a country allocation similar to that of the S&P Global BMI for the S&P Global Dividend Aristocrats Quality Income Index and the S&P Developed Ex-Korea BMI for the S&P Developed Ex-Korea Dividend Aristocrats Quality Income Index, respectively. Any excess

weight is proportionally redistributed to all uncapped constituents. For each country (c) the weight in the index (IW_c) is capped relative to its weight in the BMI ($BMIW_c$) as follows:

- If $10\% \leq BMIW_c$, then the index weight of the country is capped by:
$$BMIW_c - 10\% \leq IW_c \leq BMIW_c + 10\%$$
- If $5\% \leq BMIW_c < 10\%$, then the index weight of the country is capped by:
$$IW_c \leq BMIW_c + 10\%$$
- If $1\% \leq BMIW_c < 5\%$, then the index weight of the country is capped by:
$$IW_c \leq 3 * BMIW_c$$
- If $BMIW_c < 1\%$, then the index weight of the country is capped by:
$$IW_c \leq 3\%$$

If the optimization fails to satisfy the above capping constraints, the following steps are performed:

1. Increase the cap on the weight of each country by 2% and decrease the floor on the weight of each country by 2%.
2. If the optimization still fails, Increase the cap on the weight of each GICS Sector by 2.5%.
3. If the optimization still fails, Increase the cap on the weight of each index constituent by 1%.
4. If there is still no solution after Step 3, return to Step 1 and rerun the process until the optimization works.

Index Calculations

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

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

Index Maintenance

Rebalancing

Annual. The indices are fully rebalanced annually effective after the close of business on the last trading date of January. The reference date for the data used in the review is the last business day of December. At this rebalancing, an updated universe is used and all stocks are screened for all eligibility criteria.

Semi-Annual Review. In addition to the annual rebalancing and the monthly dividend review (see below), the indices also undergo a secondary review to ensure adherence to the constituent weighting criteria. Any changes due to the realignment of constituent weights with the weighting criteria or the removal of stocks no longer eligible for index inclusion become effective after the close of the last trading date of July. If weights require realignment, as of the reference date, the excess weight is redistributed among other stocks based on current constituent weights. The reference date is the last business day of the month prior to the rebalancing month.

Monthly Dividend Review

S&P Dow Jones Indices reviews index constituents on a monthly basis. If S&P Dow Jones Indices determines an index constituent has eliminated, suspended its dividend or omitted a payment, it will be removed from the Index effective prior to the open of the first business day of the following month.

In addition, constituent stocks are reviewed on a monthly basis for dividend cuts. Constituent stocks may, at the discretion of the Index Committee, be removed effective prior to the open of the first business day of the following month if the constituent company lowers but does not eliminate its dividend, its new yield is significantly lower than the lowest yielding constituent, and the index committee can determine based on current information that the company will not qualify for inclusion at the next rebalancing.

The determination of qualifying for the index at the subsequent annual reconstitution is done 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. Any changes are announced five business days prior to month-end. The index constituents removed as part of the monthly dividend review process are not replaced until the following annual reconstitution.

Additions and Deletions

Additions. With the exception of spin-offs, no additions are made to the indices between rebalancings.

Deletions. Index constituents are removed from the indices between rebalancings if the stock is removed from the S&P Global BMI due to corporate events such as mergers, acquisitions, takeovers or delisting.

Corporate Actions

Corporate Action	Adjustment Made to Index	Divisor Adjustment?
Spin-off	In general, both the parent and spin-off companies remain in the indices until the next index rebalancing, provided that each gives an indication it will continue and/or initiate a consistent dividend paying policy.	
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 dividend, stock split, reverse stock split	Index shares are multiplied by and price is divided by the split factor.	No
Share Issuance, Share Repurchase, Equity Offering or Warrant Conversion	None.	No
Special Dividends	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
Constituent Change	There are no intra-rebalancing additions.	-
	Deletions due to delistings, acquisition or any other corporate event resulting in the deletion of the stock from the index causes the weights of the rest of the stocks in the index to change. Relative weights stay the same.	Yes

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

Currency of Calculation and Additional Index Return Series

The S&P Global Dividend Aristocrats Index is calculated in real-time in U.S. and Australian dollars. The S&P International Dividend Aristocrats Index is calculated in real-time in U.S. dollars and euros. The S&P Global Dividend Aristocrats Quality Income Index is calculated in U.S. dollars. Underlying local currency prices are collected and are converted to U.S. dollars, Australian dollars, and euros using real-time spot exchange rates sourced from an established market information vendor.

WM/Reuters foreign exchange rates are taken daily at 4:00 PM London Time and used in the calculation of the end-of-day values of the index. 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 more information on these types of indices, 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.spdji.com.

Base Date and History Availability

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

Index	Launch Date	First Value Date	Base Date	Base Value
S&P Global Dividend Aristocrats Index	04/03/2013	01/31/1996	01/31/1996	100
S&P International Dividend Aristocrats Index	04/30/2018	01/19/2009	01/19/2009	100
S&P Global Dividend Aristocrats Quality Income Index	11/04/2019	01/31/1996	01/31/1996	100
S&P Developed Ex-Korea Dividend Aristocrats Quality Income Index	06/30/2020	01/31/1996	01/31/1996	100

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

S&P Dow Jones Indices' Global Strategy Index Committee maintains the indices. The Index 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 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.

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 and their corresponding weights and index shares effective for the upcoming rebalancing. Since index shares are assigned based on prices seven business days 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 indices are calculated daily, throughout the calendar year. The only days the indices are not calculated or files are not distributed are on days when all exchanges where the indices' constituents are listed are officially closed.

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 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 (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 [S&P DJI's All Indices by Methodology Report](#) for a complete list of indices covered by this document.

Index	Return Type	Bloomberg	Reuters
S&P Global Dividend Aristocrats Index	Price Return	SPGDAUP	.SPGDAUP
	Total Return	SPGDAUT	.SPGDAUT
	Net Total Return	SPGDAUN	.SPGDAUN
S&P International Dividend Aristocrats Index	Price Return	SPGUDAUP	.SPGUDAUP
	Total Return	SPGUDAUT	.SPGUDAUT
	Net Total Return	SPGUDAUN	.SPGUDAUN
S&P Global Dividend Aristocrats Quality Income Index (USD)	Price Return	SPGDASUP	.SPGDASUP
	Total Return	SPGDASUT	.SPGDASUT
	Net Total Return	SPGDASUN	.SPGDASUN
S&P Developed Ex-Korea Dividend Aristocrats Quality Income Index (USD)	Price Return	SPDDASUP	--
	Total Return	SPDDASUT	--
	Net Total Return	SPDDASUN	--
S&P Developed Ex-Korea Dividend Aristocrats Quality Income Index (NZD)	Price Return	SPDDASNP	--
	Total Return	SPDDASNT	--
	Net Total Return	SPDDASNN	--

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.

Appendix

Methodology Changes

Methodology changes since January 1, 2015 are as follows:

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Monthly Dividend Review	04/19/2019	The determination of qualifying for the index at the subsequent annual reconstitution is done 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. The index constituents removed as part of the monthly dividend review process are not replaced until the following annual reconstitution.	The determination of qualifying for the index at the subsequent annual reconstitution is done 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. Any changes are announced five business days prior to month-end. The index constituents removed as part of the monthly dividend review process are not replaced until the following annual reconstitution.
Monthly Dividend Review	07/31/2018	--	<p>S&P Dow Jones Indices reviews index constituents on a monthly basis. If S&P Dow Jones Indices determines an index constituent has eliminated, suspended its dividend or omitted a payment, it will be removed from the Index effective prior to the open of the first business day of the following month.</p> <p>In addition, constituent stocks are reviewed on a monthly basis for dividend cuts. Constituent stocks may, at the discretion of the Index Committee, be removed effective prior to the open of the first business day of the following month if the constituent company lowers but does not eliminate its dividend, its new yield is significantly lower than the lowest yielding constituent, and the index committee can determine based on current information that the company will not qualify for inclusion at the next rebalancing.</p> <p>The determination of qualifying for the index at the subsequent annual reconstitution is done 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. The index constituents removed as part of the monthly dividend review process are not replaced until the following annual reconstitution.</p>

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Consideration of recurring special cash dividends for eligibility, selection, and weighting purposes	03/30/2018	Recurring special cash dividends that S&P Dow Jones Indices considers to be part of the normal payment pattern established by the company are considered regular for eligibility, selection, and weighting purposes.	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.
Stock Replacement	09/25/2017	Any index constituent which has omitted its most recent dividend is removed and replaced with the eligible stock with the highest indicated dividend yield.	Any index constituent which has omitted its most recent dividend is removed from the index. Index constituents removed between annual rebalancings are not replaced.

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