

Aligning Income with ESG: The S&P ESG Dividend Aristocrats®

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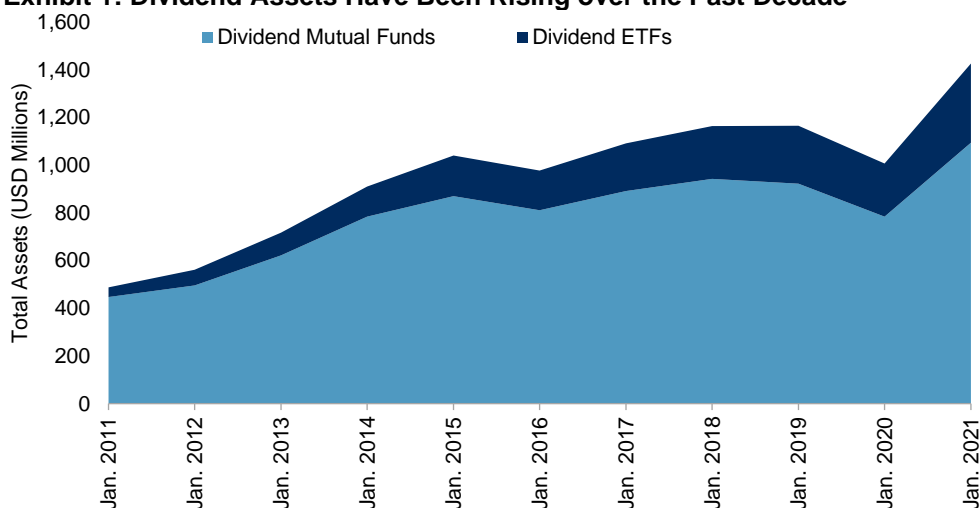
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INTRODUCTION

Over the past 10 years, total ETF assets tracking dividend-related strategies have increased eightfold, reaching USD 330 billion. Including mutual funds, we estimate that nearly USD 1.4 trillion of assets are tied to dividends¹ (see Exhibit 1). This growth trajectory, which has coincided with the persistent low-rate environment since 2008, confirms that dividend strategies have remained a key part of income-seeking investor portfolios.

Exhibit 1: Dividend Assets Have Been Rising over the Past Decade



Source: S&P Dow Jones Indices LLC, Morningstar. Data as of March 31, 2021. Chart is provided for illustrative purposes

Environmental, social, and governance (ESG) is an area that continues to reshape the investment landscape, with an increasing number of asset owners, asset managers, and service providers committed to responsible investing, based on data from the United Nations Principles for Responsible Investment (UN PRI). As of year-end 2020, the UN PRI signatories had at least USD 100 trillion in assets under management, a multi-fold increase in signatories and associated assets from 10 years prior.

A pioneer of dividend indexing, S&P Dow Jones Indices (S&P DJI) has continued to create, innovate, and maintain some of the most recognized dividend strategies in the indexing space, including the S&P Dividend Aristocrats Indices. This series of dividend indices targets companies that

¹ Morningstar. Data as of March 31, 2021.

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have had consistent dividend growth over time. A measure of financial sustainability, this strategy aims to capture companies that have successful business operations and disciplined financial management.

In this next chapter, the S&P Dividend Aristocrats Series expands its scope beyond financial sustainability to include ESG considerations. Five indices have been launched as part of the newly created S&P ESG Dividend Aristocrats Series, offering access to multiple geographical regions including the U.S., global, and Europe (see Exhibit 2). These indices seek to track dividend growth stocks that simultaneously meet minimum ESG standards. In this paper, we explore S&P DJI's innovative approach to incorporating ESG into the S&P Dividend Aristocrats Series.

Exhibit 2: Five New Indices Launched within the S&P ESG Dividend Aristocrats Series

REGION	S&P ESG DIVIDEND ARISTOCRATS INDICES
U.S.	S&P ESG High Yield Dividend Aristocrats Index
Eurozone	S&P Euro ESG High Yield Dividend Aristocrats Index
Developed Markets	S&P Developed ESG Dividend Aristocrats Index
Global	S&P Global ESG Dividend Aristocrats Index
Global (Quality Income)	S&P Global ESG Dividend Aristocrats Quality Income Index

Source: S&P Dow Jones Indices LLC. Table is provided for illustrative purposes.

S&P DJI has continued to create, innovate, and maintain some of the most recognized dividend strategies, including the S&P Dividend Aristocrats.

Broadly, we see the following meaningful implications for both ESG and dividend investors.

- **Low tracking error and comparable dividend yield:** Compared to the S&P Dividend Aristocrats Indices, the equivalent ESG versions were found to have a relatively low tracking error to non-ESG counterparts and, on average, a minor reduction in dividend yield. Despite the additional ESG-related screens, these newly launched indices retained the key characteristics of dividend growth strategies.
- **Additional layer of sustainability:** Dividend growth, which underpins the S&P Dividend Aristocrats investment philosophy, is considered a well-established approach to investing in dividends. Augmenting ESG criteria serves to further ensure selection of dividend payers with sustainable and ethical business practices, a combination that could reinforce the principles of sustainable dividend investing.
- **Enhancing diversification of ESG:** ESG mandates are now presented with a range of new dividend indices for selection. With multiple geographical versions available (see Exhibit 2), ESG-focused investors have an opportunity to diversify from previously available ESG strategies and climate-related investments.

In this paper, we explore S&P DJI's innovative approach to incorporating ESG into the S&P Dividend Aristocrats Series.

A SYSTEMATIC AND TRANSPARENT APPROACH TO CONSTRUCTION

The initial selection steps follow those of the S&P Dividend Aristocrats Indices.

For full details of the eligibility criteria and index construction, please refer to the [S&P ESG Dividend Aristocrats Indices Methodology](#). In summary, the selection process is as follows (see Exhibit 3).²

1. **Determining the starting universe:** A broad index generally forms the starting universe. For example, the [S&P Global BMI](#) is the index universe for the [S&P Global ESG Dividend Aristocrats Index](#). To be eligible for selection, stocks need to meet certain minimum liquidity and market capitalization criteria.
2. **Identifying the Dividend Aristocrats:** Eligible stocks must follow a managed-dividends policy of having consistently increased or maintained dividends for a minimum number of years. For example, in U.S., the minimum history of consecutive dividend increases required for membership is 20 years. Other qualifying criteria, such as payout ratio and return on equity, may apply depending on each index.
3. **Applying ESG criteria:** Companies that qualify after the dividend screen (“selection pool”) are then subject to three ESG-related screens.
 - I. **Assessment by [S&P DJI ESG Scores](#):** The selection pool of stocks are ranked by their S&P DJI ESG Scores, and the bottom 25% by stock count are excluded. An ESG score can range from 0 to 100, reflecting the depth and breadth of a company's environmental, social, and governance performance across hundreds of metrics.
 - II. **Exclusion by product involvement:** Companies that are involved, directly or indirectly, in controversial weapons, thermal coal, or tobacco are excluded. These are areas that are deemed to be detrimental to society and incompatible with sustainable investment strategies.
 - III. **Alignment with UN Global Compact (UNGC) principles:** Stocks that perform poorly in relation to UNGC principles are excluded. These principles are a measure of controversial behavior and include matters involved with human rights, labor rights, the environment, and anti-corruption.
4. **Selecting the final list:** Stocks are ranked by their indicated annual dividend yield (IAD yield), where the highest-yielding stocks are selected to meet the stated target count for each index (for the U.S. version, all eligible stocks are selected). To maximize exposure to

Companies that qualify after a dividend screen are then subject to three ESG-related screens.

Finally, stocks are ranked and weighted by indicated dividend yield.

² See Appendix I for the rules governing each index.

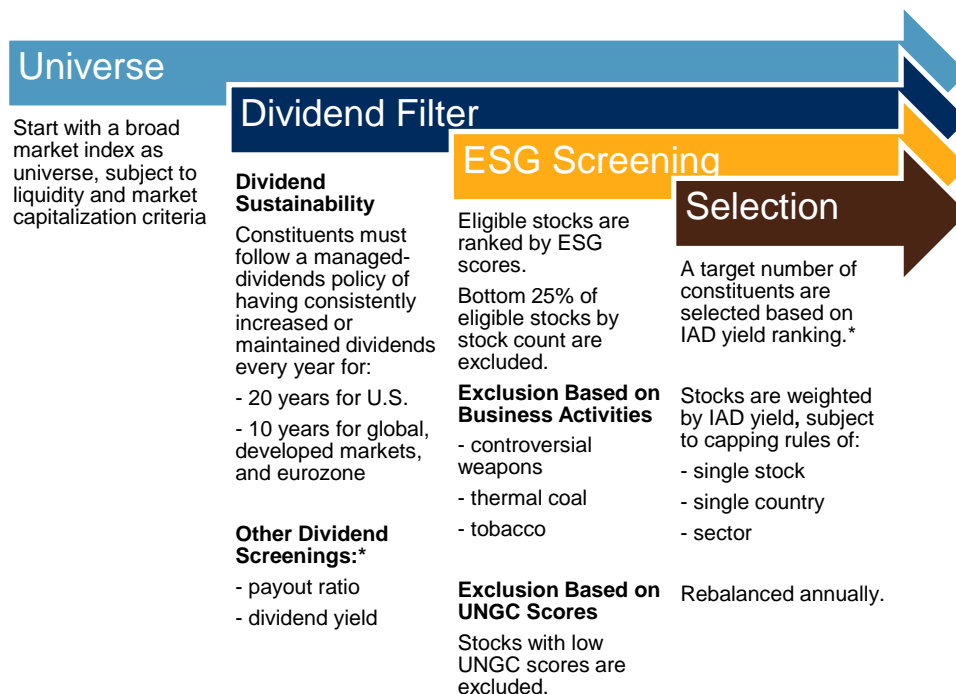
dividend yield, the S&P ESG Dividend Aristocrats Indices are weighted by IAD yield, subject to diversification rules.

Exhibit 3: A Summary of the S&P ESG Dividend Aristocrats Indices Methodology

The S&P ESG Dividend Aristocrats Indices undergo a set of comprehensive reviews every year to ensure alignment with the index objectives.

The annual reconstitution is a full constituent review based on the respective index methodology.

Monthly dividend reviews are performed for maintenance, typically to remove stocks that have canceled or suspended their dividends.



*Except for the U.S. market (S&P ESG High Yield Dividend Aristocrats Index). Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. For methodology details, please refer to Appendix I. Chart is provided for illustrative purposes.

The S&P ESG Dividend Aristocrats Indices undergo a set of comprehensive reviews every year to ensure alignment with the index objectives. There are three types of reviews: annual reconstitution, periodical capping, and monthly dividend reviews (see Exhibit 4). Annual reconstitution is a full constituent review based on the respective index methodology. Additionally, to ensure adherence to the constituent capping rules, periodical reweighting is applied on a quarterly or semiannual basis. Monthly dividend reviews are performed for maintenance, typically to remove stocks that have canceled or suspended their dividends. All these reviews are consistent with the S&P Dividend Aristocrats Series.

Exhibit 4: Constituents Are Reviewed Annually

S&P ESG DIVIDEND ARISTOCRATS INDEX	ANNUAL RECONSTITUTION	PERIODICAL REWEIGHTING	MONTHLY DIVIDEND REVIEW
U.S.	January	Quarterly reweighting in April, July, and October	Every month to remove stocks that have canceled or suspended their dividends
Eurozone	June	Quarterly reweighting in March, September, and December	
Developed Markets	January	Semiannual reweighting in July	
Global/Global (Quality Income)	January	Semiannual reweighting in July	

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2020. Table is provided for illustrative purposes.

A HIGH DEGREE OF OVERLAP IN INDEX CONSTITUENTS

Broadly, the addition of ESG screens to the selection process introduced relatively moderate differences in the index compositions when compared to the classic S&P Dividend Aristocrats Indices (see Exhibit 5). All five ESG indices retain a significant number of common stocks and the active share,³ on average, was also found to be low for all regions.

The addition of ESG screens to the selection process introduced relatively moderate differences in the index compositions.

Exhibit 5: Low Active Share for All Regions

REGION	NUMBER OF STOCKS		NUMBER OF COMMON STOCKS	ACTIVE SHARE
	S&P ESG DIVIDEND ARISTOCRATS	S&P DIVIDEND ARISTOCRATS		
U.S.	81	112	81	26.6
Developed Markets	96	97	67	30.7
Eurozone	37	40	29	23.7
Global	95	97	66	33.7
Global (Quality Income)	95	97	62	39.5

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Table is provided for illustrative purposes.

The removal of the bottom 25% by S&P DJI ESG Scores, an exclusion approach that focuses on risk mitigation but still allows for selection of top consistent dividend payers, explains the limited differences between the ESG and non-ESG versions of S&P Dividend Aristocrats Indices. A best-in-class approach of ESG integration instead may have led to greater differences and potentially lower yield. Additionally, within dividend payers, a possible positive correlation may exist between ESG and dividend sustainability, thus capturing most of the existing S&P Dividend Aristocrats names (see Appendix II).

The removal of the bottom 25% by S&P DJI ESG Scores explains the limited differences between the ESG and non-ESG versions of the indices.

UNDERWEIGHT UTILITIES

A detailed comparison for each of the five new indices is presented as individual factsheets in Appendix III, including sector and country breakdowns. While in general, sector allocation differences are mixed, a common theme across all ESG versions of S&P Dividend Aristocrats Indices is an underweight in Utilities, traditionally a high-dividend-paying sector. A number of Utilities companies are likely to have been excluded as a result of thermal coal exclusions. In Exhibit 6, we further illustrate the average historical sector allocations for the [S&P ESG High Yield Dividend Aristocrats \(HYDA\) Index](#). In addition to Utilities, visible differences are noted in Financials (underweight in S&P ESG HYDA Index) and Consumer Staples (overweight in S&P ESG HYDA Index).

³ Active share is measured by taking the sum of the absolute weight differences of each holding between two indices and dividing by two. Active share ranges from 0 to 100, where a lower value implies greater similarities between the indices.

Exhibit 6: S&P ESG HYDA Index Underweighted Utilities and Financials over the Past 10 Years

A common theme across all ESG versions of the S&P Dividend Aristocrats Indices is an underweight in Utilities, a high-dividend-paying sector.

YEAR	AVERAGE SECTOR WEIGHT DIFFERENCE (%) (S&P ESG HYDA INDEX – S&P HYDA INDEX)									
	COMMUNICATION SERVICES	CONSUMER DISCRETIONARY	CONSUMER STAPLES	ENERGY	HEALTH CARE	INDUSTRIALS	INFORMATION TECHNOLOGY	MATERIALS	UTILITIES	FINANCIALS + REAL ESTATE
2011	-3.8	3.3	10.4	3.4	5.8	0.2	-3.0	-0.1	-6.8	-9.3
2012	0.9	3.5	11.3	-0.1	5.8	-4.7	-2.9	1.5	-6.2	-9.1
2013	0.3	-1.8	10.2	1.9	0.5	-1.8	0.9	0.9	-6.0	-5.3
2014	0.5	1.9	11.5	1.3	2.3	3.5	-1.6	1.2	-4.5	-16.0
2015	0.8	2.6	9.9	1.4	3.5	-0.2	1.0	-0.4	-4.6	-14.1
2016	1.3	0.8	6.6	2.8	2.5	4.5	0.7	-1.6	-7.2	-10.3
2017	0.0	1.8	4.6	1.3	5.6	3.7	-0.6	-2.4	-1.4	-12.7
2018	-0.5	3.9	7.1	1.9	3.3	1.8	0.5	-1.6	-6.3	-10.2
2019	-0.8	1.6	4.6	1.6	1.7	0.4	1.9	-0.9	-5.5	-4.6
2020	-0.5	1.2	11.0	-0.4	4.2	-3.0	1.6	2.6	-6.7	-10.2
2021 Q1	0.2	2.7	3.7	2.1	1.0	0.8	1.1	-0.7	-4.4	-6.5

A number of Utilities companies are likely to have been excluded as a result of thermal coal exclusions.

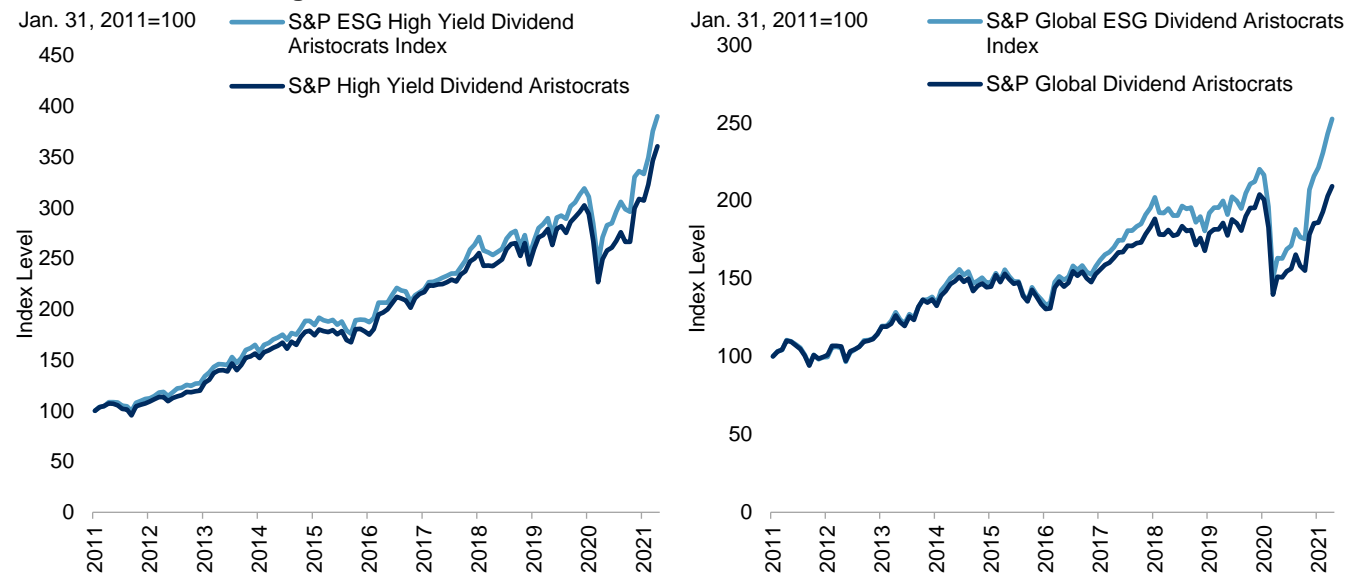
Source: S&P Dow Jones Indices LLC. Sector weight data based on the average of the sector weights at the end of each quarter for each calendar year from March 31, 2011, to March 31, 2021. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

HISTORICAL PERFORMANCES HAVE REMAINED BROADLY IN LINE

The close resemblance between the S&P ESG Dividend Aristocrats and S&P Dividend Aristocrats also meant that their historical performances were similar.

The close resemblance between the S&P ESG Dividend Aristocrats and S&P Dividend Aristocrats also meant that their historical performances were similar. The 10-year performance history of the U.S. and global versions (see Exhibit 7) demonstrates this, although a small divergence developed recently. A simple risk analysis also reveals that the volatility was comparable for the ESG and non-ESG versions. Likewise, the tracking error between the S&P ESG Dividend Aristocrats and S&P Dividend Aristocrats has also been relatively low, ranging between 1.6% and 3.3% across all available regions. The design of these ESG dividend indices is such that they retain many of the characteristics of the popular S&P Dividend Aristocrats Series.

Exhibit 7: Low Tracking Error Observed over the Past 10 Years



CHARACTERISTIC	U.S.		DEVELOPED MARKETS		GLOBAL		GLOBAL (QUALITY INCOME)		EUROZONE	
	USD, TR									
	ESG DA	DA	ESG DA	DA	ESG DA	DA	ESG DA	DA	ESG DA	DA
Annualized Return (%)	14.21	13.33	9.01	7.12	9.46	7.47	9.62	8.28	8.08	6.50
Annualized Volatility (%)	12.35	12.82	14.37	14.64	15.15	14.85	14.62	14.14	13.92	14.71
Return/Volatility	1.15	1.04	0.63	0.49	0.62	0.50	0.66	0.59	0.58	0.44
Maximum Drawdown	23.21	25.06	29.38	30.92	31.68	31.54	33.35	33.38	24.87	27.46
Tracking Error versus S&P Dividend Aristocrats Index	2.39	-	1.63	-	2.15	-	2.34	-	3.29	-

Source: S&P Dow Jones Indices LLC. Data from Jan. 31, 2011, to April 30, 2021. “DA” stands for S&P Dividend Aristocrats. “ESG DA” stands for S&P ESG Dividend Aristocrats. Index performance based on total return in USD for all except Eurozone, for which index performance based on total return in EUR. Past performance is no guarantee of future results. Charts and table are provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

YIELDS MEANINGFULLY ABOVE BROAD BENCHMARKS

While the S&P Dividend Aristocrats Series focuses primarily on dividends, the construction of the S&P ESG Dividend Aristocrats Indices strikes a balance between ESG and dividends, which may mean a lower dividend yield. The index factsheets in Appendix III show that the magnitude of reduction varied by index, but was mostly under 10%. For example, the eurozone version saw a 6% reduction from 3.3% to 3.1%.

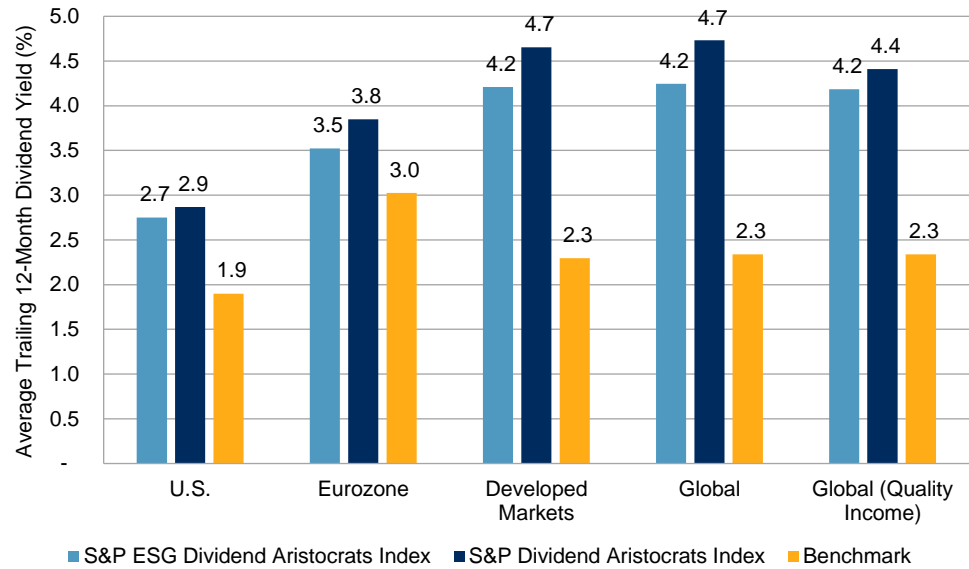
Exhibit 8 shows the historical average trailing 12-month dividend yield for all regional versions of the S&P ESG Dividend Aristocrats Indices against their respective S&P Dividend Aristocrats Indices and broad benchmark indices. Over the period, the average reduction in dividend yield appeared relatively small compared to the non-ESG versions. However, the S&P ESG Dividend Aristocrats Index was still able to deliver a dividend yield that was meaningfully above the broad market benchmark.

The design of these ESG dividend indices is such that they retain many of the characteristics of the popular S&P Dividend Aristocrats Series.

Despite the slight decrease in yield, the S&P ESG Dividend Aristocrats Index was still able to deliver a dividend yield that was above the broad market benchmark.

Across all regions, the S&P ESG Dividend Aristocrats Indices showed higher S&P DJI ESG scores than their respective S&P Dividend Aristocrats Indices.

Exhibit 8: Average Trailing 12-Month Dividend Yield Slightly below S&P Dividend Aristocrats Indices



Source: S&P Dow Jones Indices LLC. Data from Jan. 31, 2012, to April 30, 2021. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

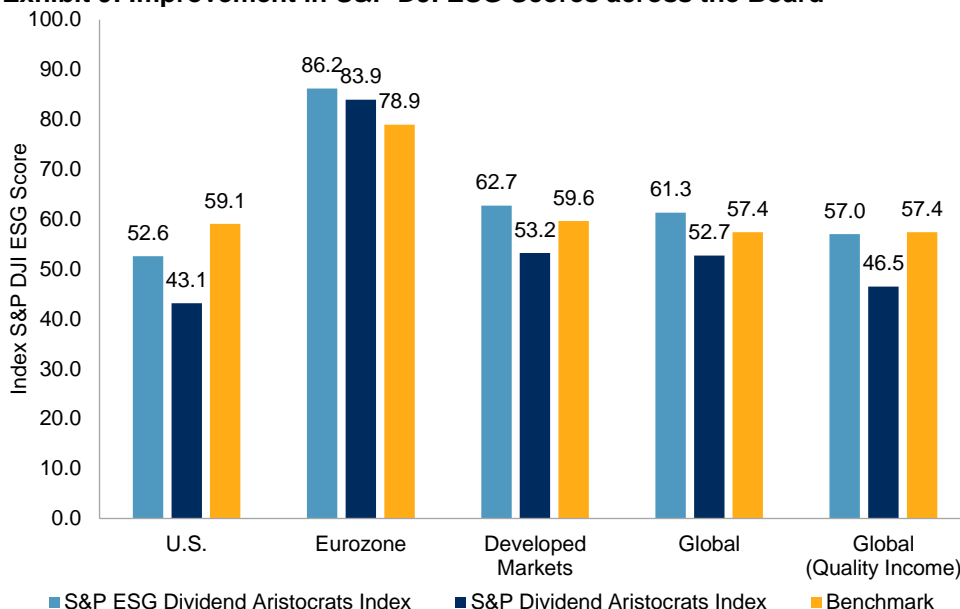
ENHANCED ESG CHARACTERISTICS AND REDUCED CARBON INTENSITY

The incorporation of ESG metrics better aligns a strategy with sustainable and ethical investing principles. ESG scores and carbon footprints are commonly used measures to make this assessment. Our findings show that the improvement seen for the S&P ESG Dividend Aristocrats Indices was robust in terms of both ESG scores and carbon intensity.

Across all regions, the S&P ESG Dividend Aristocrats Indices showed higher S&P DJI ESG Scores, compared with their respective S&P Dividend Aristocrats Indices (see Exhibit 9). There were significant improvements in the U.S., developed markets, and global indices, with an average increase of 20% (9.2 points).⁴ In the eurozone version, however, where the S&P DJI ESG Score was as high as 84 (versus a maximum of 100) for the S&P Dividend Aristocrats Index, the improvement was lower, as could be expected.

⁴ As of March 31, 2021.

Exhibit 9: Improvement in S&P DJI ESG Scores across the Board



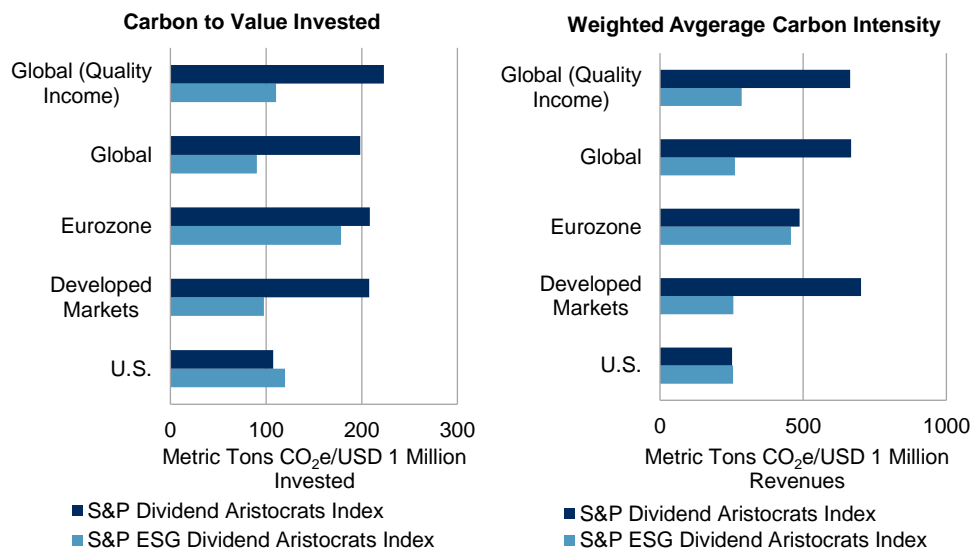
Similar improvement trends were observed based on two carbon-related metrics; carbon to value invested and weighted average carbon intensity.

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Chart is provided for illustrative purposes.

Similar improvement trends were observed based on two carbon-related metrics; carbon to value invested and weighted average carbon intensity (see Exhibit 10). Although there were reductions across most ESG dividend indices, it was greatest for the global and developed ESG versions. The exclusion of companies associated with thermal coal is likely to be a key contributor to the reduced levels of carbon intensity.

When a company is reliably able to boost its dividend for years—or even decades—this may suggest it has a certain amount of financial strength and discipline.

Exhibit 10: Significant Reduction in Carbon Footprint



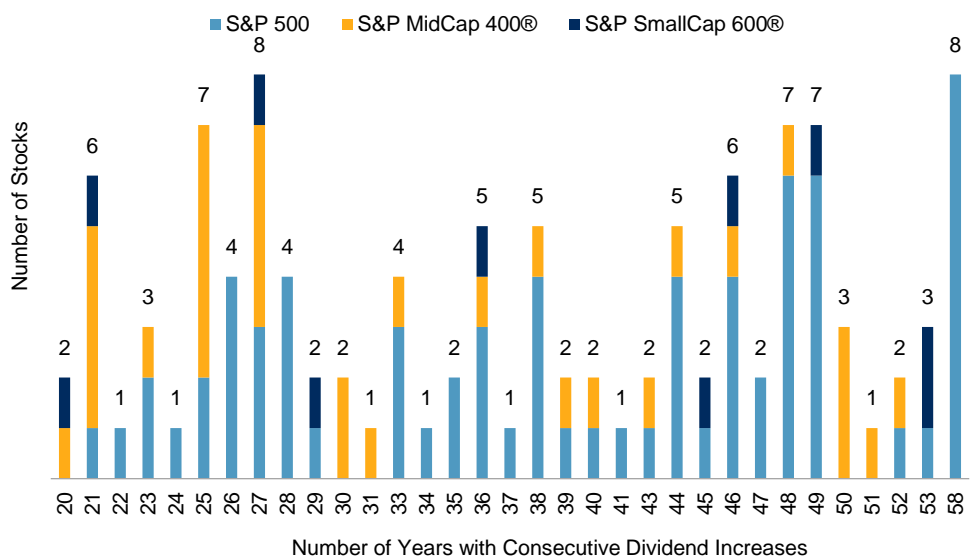
Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Carbon to value invested measures the aggregation of operational and first-tier supply chain carbon footprints of index constituents per USD 1 million invested. The weighted average carbon intensity is the weighted average of individual company intensities (operational and first-tier supply chain emissions over revenues), weighted by the proportion of each constituent in the index. For more information, please visit www.spglobal.com/esg-carbon-metrics. Charts are provided for illustrative purposes.

Dividend Sustainability Potentially Reinforced

The question that follows is what could an improved ESG score mean for dividends? We acknowledge that dividend growth strategies such as S&P Dividend Aristocrats have been widely known as a quality dividend strategy with the ability to deliver sustainable dividend yields and capital appreciation, especially during volatile periods.⁵ The underlying logic is simple and powerful: when a company is reliably able to boost its dividend for years—or even decades (see Exhibit 11)—this may suggest it has a certain amount of financial strength and discipline.

The expectation is that an ESG-conscious company is likely to be a well-governed company with well-managed financial policies.

Exhibit 11: A Long History of Dividend Increases in S&P High Yield Dividend Aristocrats



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Chart is provided for illustrative purposes.

Adding ESG considerations may help to further enhance dividend sustainability.

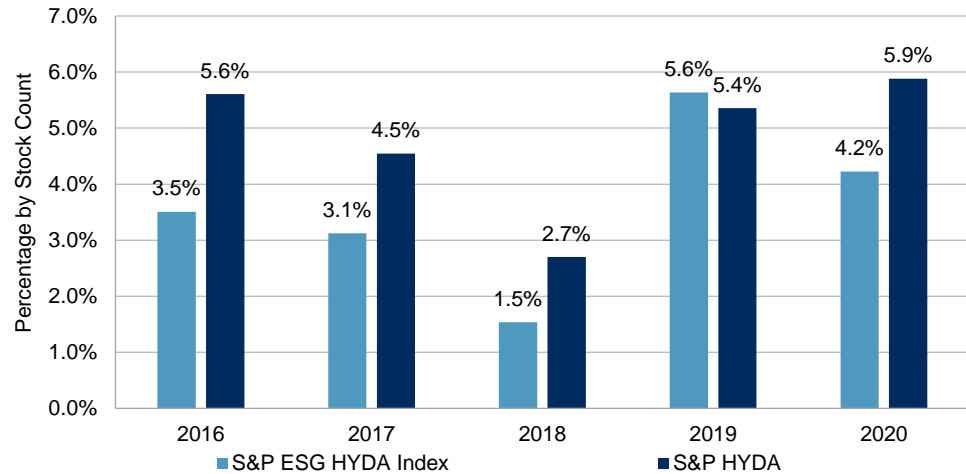
The layering of ESG screens brings into focus ethical factors that are of increasing importance. The expectation is that an ESG-conscious company, devoted to environmental protection and social welfare, is likely to be a well-governed company with well-managed financial policies. In addition to financial sustainability, as captured by the S&P Dividend Aristocrats Indices, adding ESG considerations may help to further enhance dividend sustainability.

A comparison between the historical dividend payments of the ESG and non-ESG versions of the U.S. index did indeed show an improvement in a number of cuts over the past five years (see Exhibit 12). While a similar improvement was observed for the eurozone version, the number of cuts in the global versions of the index were relatively consistent with the non-ESG counterparts.

⁵ Cheng, Tianyin, Izzy Wang, and Vinit Srivastava. [“A Case for Dividend Growth Strategies.”](#) S&P Dow Jones Indices. June 4, 2021.

We examined what the COVID-19 pandemic meant for the performance of S&P ESG Dividend Aristocrats Indices and their non-ESG counterparts.

Exhibit 12: Fewer Dividend Cuts in U.S. over Recent Years



Source: S&P Dow Jones Indices LLC, FactSet. Data as of January 2020. Constituent data taken after close of each rebalancing effective date in January from 2016 to 2020. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

CASE STUDY: IMPLICATIONS OF PANDEMIC-LED DIVIDEND CUTS IN 2020

Taking the analysis a step further, during the COVID-19 selloff, the S&P Dividend Aristocrats slightly outperformed...

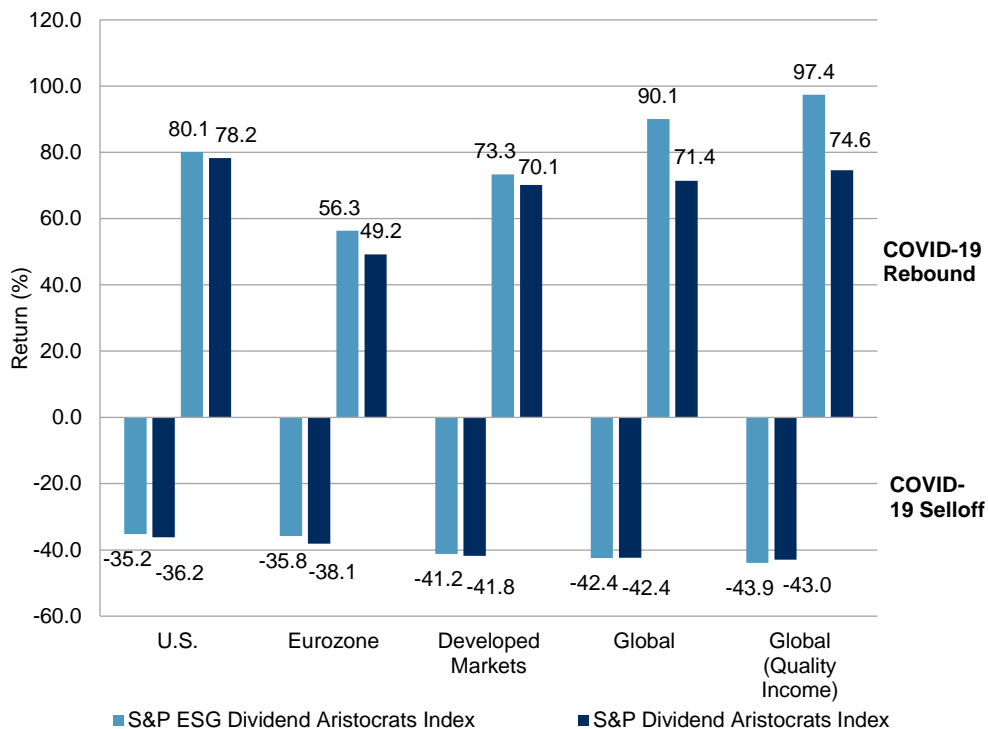
The events of 2020, when the COVID-19 pandemic struck, saw dividend cuts, cancellations, and suspensions in many markets globally. This transpired as a stress event for most dividend strategies; thus, we also briefly examined what such an event meant for the performance of the S&P ESG Dividend Aristocrats and S&P Dividend Aristocrats Indices.

For both sets of indices, we analyzed performance during the sharp selloff in the first quarter of 2020 and the rebound that ensued toward the second half of 2020 (see Exhibit 13). During the selloff, the drawdowns were comparable, although the S&P ESG Dividend Aristocrats Indices did fare slightly better in most regions. The similarity in behavior may be explained by the speed of the selloff, which may have led to equities being highly correlated with one another. However, it was during the rebound when notable differences were observed that were in favor of the S&P ESG Dividend Aristocrats Indices. From the trough in 2020 to March 31, 2021, the global version did the best, with an outperformance of 20%, followed by 7% in the eurozone, 3% in the developed markets, and 2% in the U.S.

...but over the COVID-19 rebound, the ESG versions bounced back and outperformed across the board.

Although we cannot draw firm conclusions based on a single event, it was encouraging to see the improvement in performance displayed by the S&P ESG Dividend Aristocrats Series during this eventful period.

Exhibit 13: Global ESG Versions Rebounded Strongly



The suite of regional S&P ESG Dividend Aristocrats Indices introduces new strategies for ESG investing.

It is not uncommon for investors to complement their core positions in broad market indices with more targeted allocations.

Source: S&P Dow Jones Indices LLC. Data as of March 31, 2021. COVID-19 selloff/rebound period for each region is defined by the peak and trough dates of regional benchmark (see Appendix IV for exact dates). Past performance is no guarantee of future results. Index performance based on total return in USD for all except Eurozone, for which index performance based on total return in EUR. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

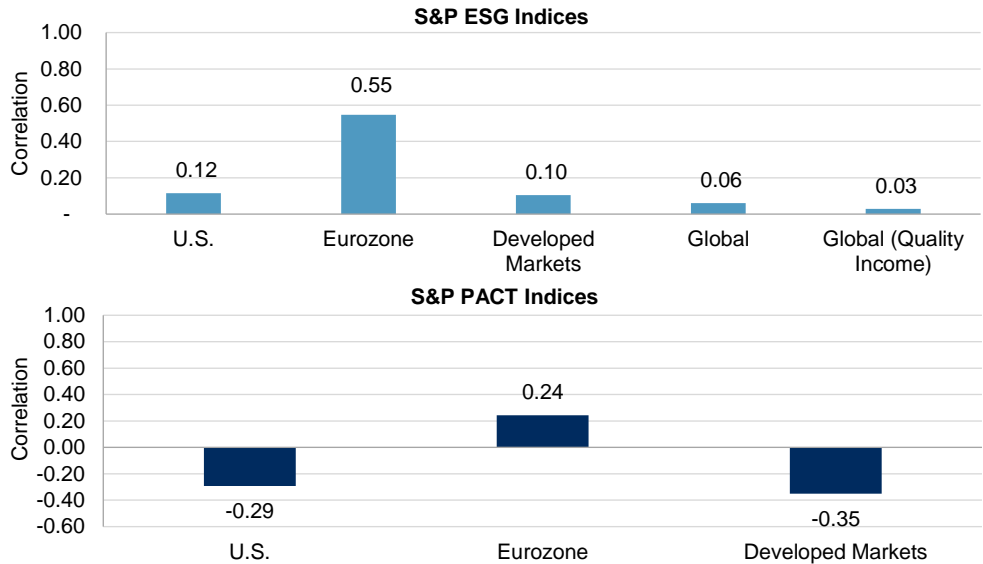
ESG DIVERSIFICATION OPPORTUNITIES

The suite of regional S&P ESG Dividend Aristocrats Indices introduces new strategies for ESG investing. It is not uncommon for investors to complement their core positions in broad market indices with more targeted allocations. The consistently growing base of market participants that take into account ESG and climate-related issues could welcome the potential diversification that a targeted strategy such as the S&P ESG Dividend Aristocrats Series may bring.

To examine this, we compared the correlations of the S&P ESG Dividend Aristocrats Indices with the range of mainstream S&P ESG Indices and S&P PACT™ Indices (S&P Paris-Aligned & Climate Transition Indices). On average, the correlations were found to be low across all regions and in some cases negatively correlated (see Exhibit 14). However, correlations were slightly elevated for the eurozone region, which may be a result of the advanced adoption of ESG business practices by companies in the region.

Exhibit 14: Low Correlation between S&P ESG Dividend Aristocrats Indices, S&P ESG Indices, and S&P PACT Indices

We compared the correlations of the S&P ESG Dividend Aristocrats Indices with the S&P ESG Indices and S&P PACT Indices...



...and they were found to be low across all regions and in some cases, negatively correlated.

Source: S&P Dow Jones Indices LLC. Correlation with S&P ESG Indices based on monthly excess return from Jan. 31, 2011, to April 30, 2021. Correlation with S&P PACT Indices based on monthly excess return from Dec. 31, 2016, to April 30, 2021.⁶ Past performance is no guarantee of future results. Charts are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

To demonstrate the potential benefits of incorporating dividends into a mainstream ESG portfolio, we examined a hypothetical ESG portfolio with exposure to European markets. Various combinations of the [S&P Europe 350[®] ESG Index](#) and [S&P Euro ESG High Yield Dividend Aristocrats Index](#) were analyzed for the 10-year period ending April 30, 2021. During this time, the region experienced multiple market stress events, including the European Sovereign Debt Crisis, Brexit, and the COVID-19 pandemic. The results, represented as a range of risk/return profiles, are shown in Exhibit 15.

To demonstrate the potential benefits of incorporating dividends into a mainstream ESG portfolio, we examined a hypothetical ESG portfolio with exposure to European markets.

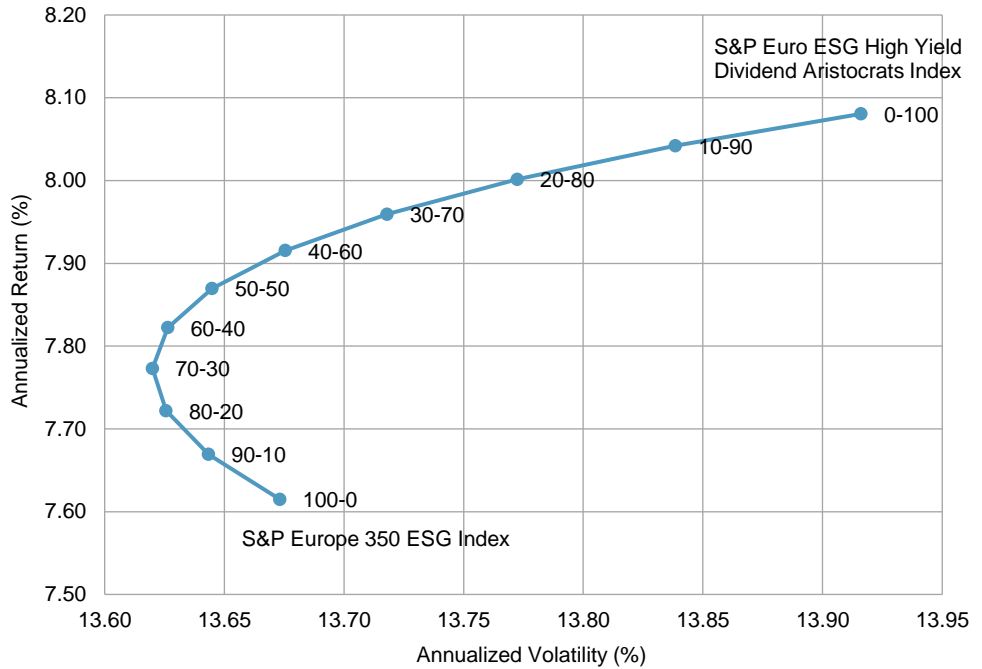
A 100% S&P Europe 350 ESG Index portfolio generated 7.6% annual total return, with 13.7% annualized volatility. Exhibit 15 shows a visual illustration of an improvement in risk-adjusted returns when allocation to S&P Euro High Yield Dividend Aristocrats Index was introduced in steps of 10%. In this example, based on historical performances, a 50/50 allocation moderately improved the total return by 25 bps while maintaining similar levels of risk.

⁶ The S&P ESG Indices for U.S., Eurozone, Developed Markets, and Global markets are represented by the S&P 500 ESG Index, S&P Europe 350 ESG Index, S&P Developed LargeMidCap ESG Index, and S&P Global LargeMidCap ESG Index, respectively. The S&P PACT Indices for the U.S., Eurozone, and Developed Markets are represented by the S&P 500 Paris-Aligned Climate Index, S&P Eurozone LargeMidCap Paris-Aligned Climate Index, and S&P Developed Ex-Korea LargeMidCap Paris-Aligned Climate Index, respectively. Benchmark indices for U.S., Eurozone, Developed and Global markets are S&P Composite 1500, S&P Eurozone BMI, S&P Developed BMI, and S&P Global BMI, respectively.

Exhibit 15: Introduction of an S&P ESG Dividend Aristocrats Index to an S&P ESG Index Was Able to Improve Risk/Return Profile

In this example, a 50/50 allocation moderately improved the total return by 25 bps while maintaining similar levels of risk.

The S&P ESG Dividend Aristocrats Indices offer a possible income solution that retains many of the characteristics of dividend growth strategies.



All portfolios are hypothetical.

Source: S&P Dow Jones Indices LLC. Data from Jan. 31, 2011, to April 30, 2021. Index performance based on monthly total return in EUR. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

CONCLUSION

The S&P ESG Dividend Aristocrats Indices offer a possible income solution that retains many of the characteristics of dividend growth strategies. It also brings new meaning to the concept of sustainable dividend investing, which could lead to improved outcomes over the long term.

At a time when ESG investing is becoming increasingly important, the availability of these indices provides an opportunity for ESG investors to integrate dividends into their portfolios. This not only enables participation in a reputable income strategy, but also introduces potential diversification benefits.

At a time when ESG investing is becoming increasingly important, the availability of these indices provides an opportunity for ESG investors to integrate dividends into their portfolios.

APPENDIX I: METHODOLOGY SUMMARY

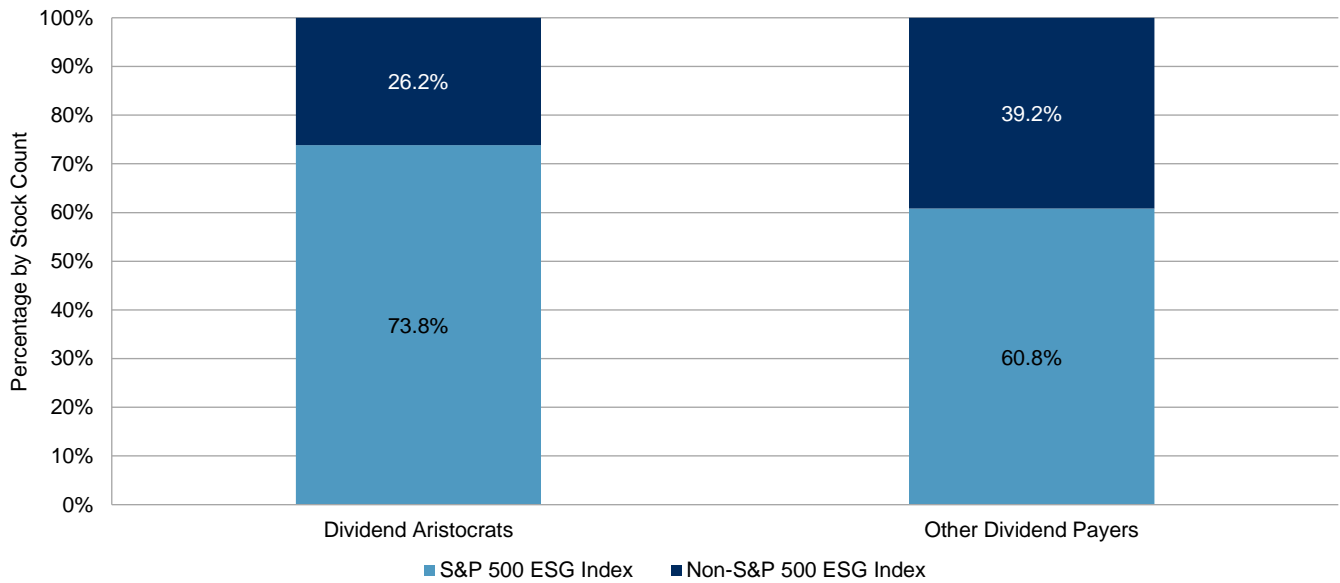
Exhibit 16: S&P ESG Dividend Aristocrats Indices Methodology Summary				
CHARACTERISTIC	GLOBAL	DEVELOPED MARKETS	EUROZONE	U.S.
Universe	S&P Global BMI	S&P Developed BMI	S&P Europe BMI (only Eurozone countries)	S&P Composite 1500
Market Cap	Float-adjusted Market Cap >= USD 1 billion			-
Liquidity	3-Month Average Daily Value Traded >= USD 5 million			-
Dividend Screening	<ul style="list-style-type: none"> - Payout Ratio: positive for all constituents; <= 100% for new constituents - Dividend Yield <= 10% - ROE >= 0 for Global (Quality Income) version only - Dividend Growth: at least 10 consecutive years of increasing or stable dividends 			Dividend Growth: at least 20 consecutive years of increasing dividends
ESG Screening	<ul style="list-style-type: none"> - Exclude worst quartile by S&P DJI ESG Scores - Exclude controversial weapons, tobacco, thermal coal - Exclude low UNGC scores 			
Stock Selection	Top 100 stocks by indicated dividend yield	Top 100 stocks by indicated dividend yield	Top 40 stocks by indicated dividend yield	Any stock that passes screenings
Diversification	<ul style="list-style-type: none"> - Maximum 20 stocks in each country - Maximum 35 stocks in each GICS sector 	<ul style="list-style-type: none"> - Maximum 20 stocks in each country - Maximum 35 stocks in each GICS sector 	-	-
Weighting	Indicated dividend yield weighted			
Capping	<ul style="list-style-type: none"> - 3% single stock cap - 25% country cap - 25% GICS sector cap - BMI relative country capping for Global (Quality Income) version only 	<ul style="list-style-type: none"> - 3% single stock cap - 25% country cap - 25% GICS sector cap 	<ul style="list-style-type: none"> - 5% single stock cap - 30% country cap - 30% GICS sector cap 	-
Rebalancing	Reconstitution in January; Semiannual reweighting	Reconstitution in January; Semiannual reweighting	Reconstitution in June; Quarterly reweighting	Reconstitution in January; Quarterly reweighting
Dividend Review	Monthly dividend review			
Launch date	March 22, 2021	Nov. 9, 2020	April 6, 2021	March 1, 2021

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Table is provided for illustrative purposes.

APPENDIX II: S&P DJI ESG SCORE AND DIVIDEND SUSTAINABILITY

To analyze the potential link between dividend sustainability and ESG, we split the S&P 500 stocks into two groups: Dividend Aristocrats and non-Dividend Aristocrats Dividend Payers. The S&P 500 Dividend Aristocrats, which includes companies that have increased dividends for at least 25 consecutive years, had a higher representation (73.8%) of S&P 500 ESG Index constituents compared with the other group (see Exhibit 17). This suggests that within dividend payers, a potential positive correlation may exist between dividend sustainability and ESG.

Exhibit 17: The Dividend Aristocrats within the S&P 500 Had a Higher Representation within the S&P 500 ESG Index

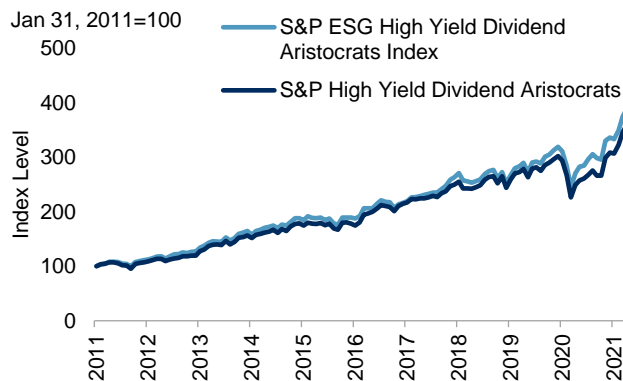


Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Chart is provided for illustrative purposes.

APPENDIX III: INDEX FACTSHEETS

Exhibit 18: S&P ESG High Yield Dividend Aristocrats Index

HISTORICAL PERFORMANCE

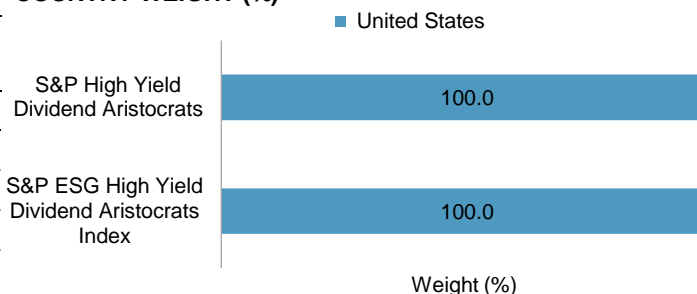


CHARACTERISTICS

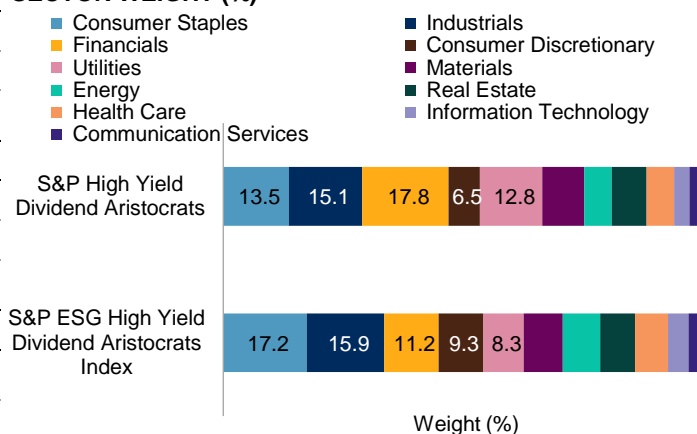
INDEX	NUMBER OF STOCKS	ESG SCORE	INDICATED DIVIDEND YIELD	ACTIVE SHARE AGAINST DIVIDEND ARISTOCRATS
S&P ESG High Yield Dividend Aristocrats Index	81	52.60	2.96	26.64
S&P High Yield Dividend Aristocrats Index	112	43.14	2.92	-

PERIOD	S&P ESG HIGH YIELD DIVIDEND ARISTOCRATS	S&P HIGH YIELD DIVIDEND ARISTOCRATS
ANNUALIZED RETURN (%)		
1-Year	44.02	44.51
3-Year	15.46	14.14
5-Year	13.54	12.86
Since Jan. 31, 2011	14.21	13.33
ANNUALIZED VOLATILITY (%)		
3-Year	17.60	18.22
5-Year	14.50	14.83
Since Jan. 31, 2011	12.35	12.82
RETURN/VOLATILITY		
3-Year	0.88	0.78
5-Year	0.93	0.87
Since Jan. 31, 2011	1.15	1.04
SINCE JAN. 31, 2011		
Maximum Drawdown (%)	23.21	25.06
Return/Maximum Drawdown	0.53	0.51

COUNTRY WEIGHT (%)



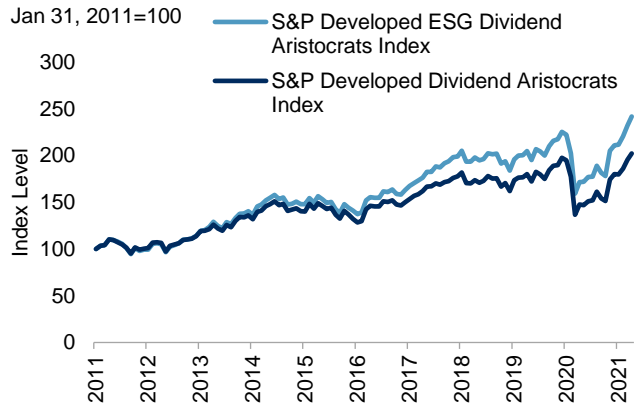
SECTOR WEIGHT (%)



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Index performance based on total return in USD. Past performance is no guarantee of future results. Charts and tables are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 19: S&P Developed ESG Dividend Aristocrats Index

HISTORICAL PERFORMANCE

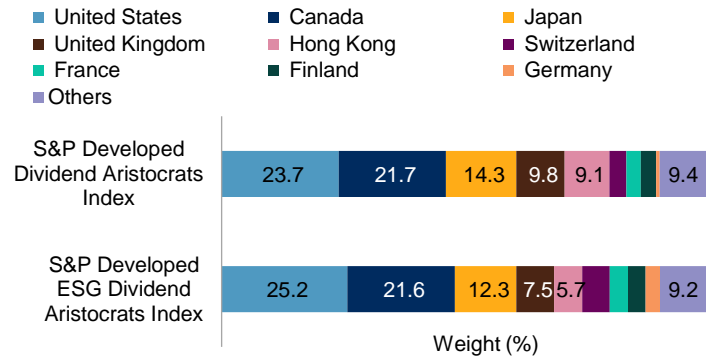


PERIOD	S&P DEVELOPED ESG DIVIDEND ARISTOCRATS	S&P DEVELOPED DIVIDEND ARISTOCRATS
ANNUALIZED RETURN (%)		
1-Year	41.04	37.15
3-Year	6.92	5.21
5-Year	9.25	6.70
Since Jan. 31, 2011	9.01	7.12
ANNUALIZED VOLATILITY (%)		
3-Year	20.11	20.80
5-Year	16.22	16.66
Since Jan. 31, 2011	14.37	14.64
RETURN/VOLATILITY		
3-Year	0.34	0.25
5-Year	0.57	0.40
Since Jan. 31, 2011	0.63	0.49
SINCE JAN. 31, 2011		
Maximum Drawdown (%)	29.38	30.92
Return/Maximum Drawdown	0.49	0.47

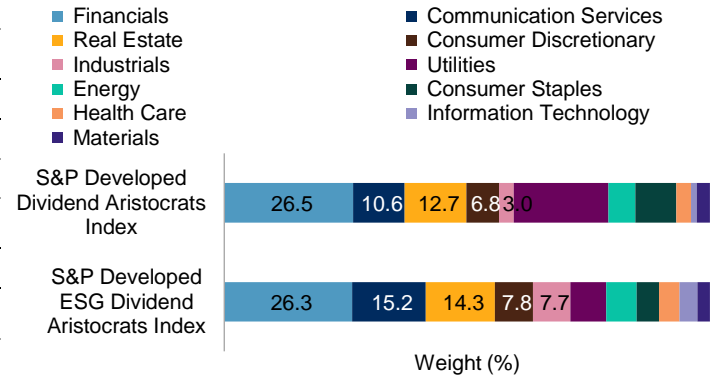
CHARACTERISTICS

INDEX	NUMBER OF STOCKS	ESG SCORE	INDICATED DIVIDEND YIELD	ACTIVE SHARE AGAINST DIVIDEND ARISTOCRATS
S&P Developed ESG Dividend Aristocrats Index	97	62.71	4.27	23.67
S&P Developed Dividend Aristocrats Index	97	53.19	4.70	-

COUNTRY WEIGHT (%)



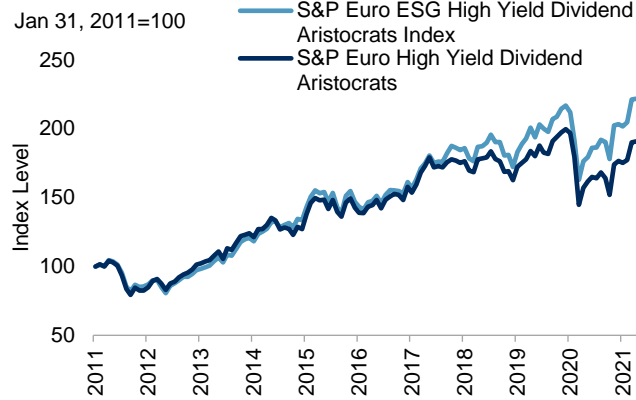
SECTOR WEIGHT (%)



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Index performance based on total return in USD. Past performance is no guarantee of future results. Charts and tables are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 20: S&P Euro ESG High Yield Dividend Aristocrats

HISTORICAL PERFORMANCE

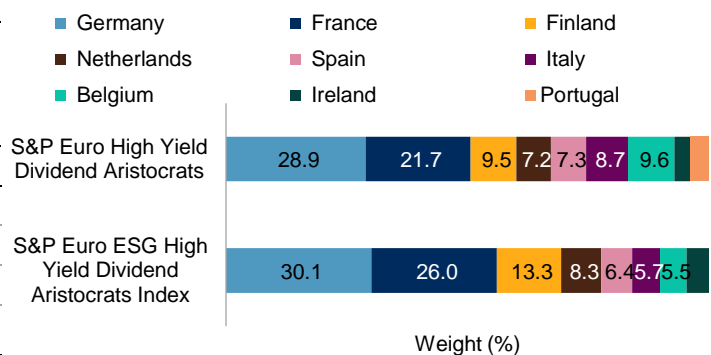


PERIOD	S&P EURO ESG HIGH YIELD DIVIDEND ARISTOCRATS INDEX	S&P EURO HIGH YIELD DIVIDEND ARISTOCRATS
ANNUALIZED RETURN (%)		
1-Year	25.82	21.38
3-Year	5.88	2.40
5-Year	8.47	5.72
Since Jan. 31, 2011	8.08	6.50
Annualized Volatility (%)		
3-Year	17.69	18.85
5-Year	15.02	16.01
Since Jan. 31, 2011	13.92	14.71
Return/Volatility		
3-Year	0.33	0.13
5-Year	0.56	0.36
Since Jan. 31, 2011	0.58	0.44
Since Jan. 31, 2011		
Maximum Drawdown (%)	24.87	27.46
Return/Maximum Drawdown	0.56	0.54

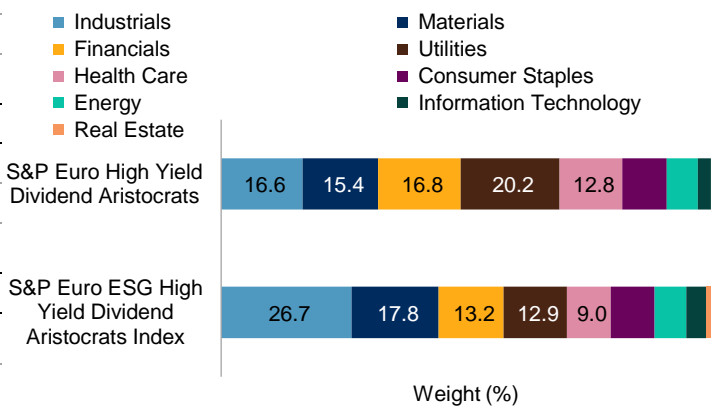
CHARACTERISTICS

INDEX	NUMBER OF STOCKS	ESG SCORE	INDICATED DIVIDEND YIELD	ACTIVE SHARE AGAINST DIVIDEND ARISTOCRATS
S&P Euro ESG High Yield Dividend Aristocrats Index	37	86.17	3.11	39.53
S&P Euro High Yield Dividend Aristocrats	40	83.93	3.30	-

COUNTRY WEIGHT (%)



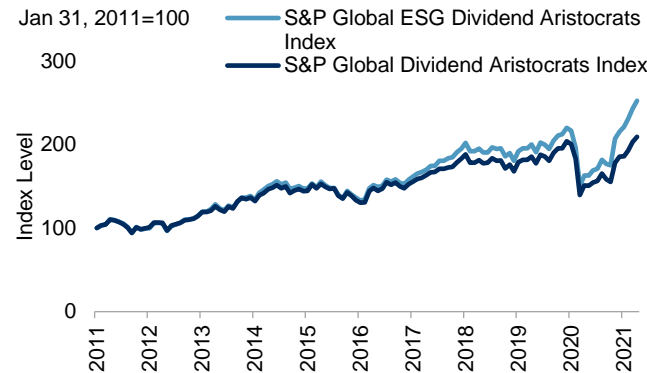
SECTOR WEIGHT (%)



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Index performance based on total return in EUR. Past performance is no guarantee of future results. Charts and tables are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 21: S&P Global ESG Dividend Aristocrats Index

HISTORICAL PERFORMANCE

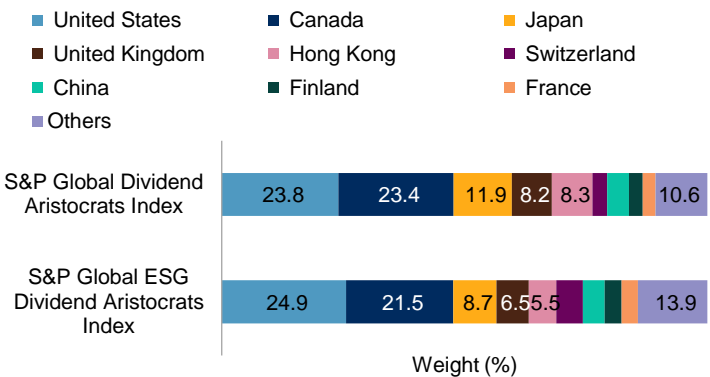


CHARACTERISTICS

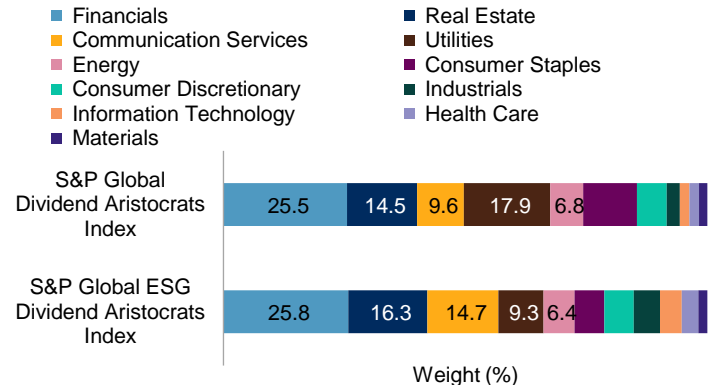
INDEX	NUMBER OF STOCKS	ESG SCORE	INDICATED DIVIDEND YIELD	ACTIVE SHARE AGAINST DIVIDEND ARISTOCRATS
S&P Global ESG Dividend Aristocrats Index	95	61.28	4.43	30.72
S&P Global Dividend Aristocrats Index	97	52.73	4.90	-

PERIOD	S&P GLOBAL ESG DIVIDEND ARISTOCRATS INDEX	S&P GLOBAL DIVIDEND ARISTOCRATS INDEX
ANNUALIZED RETURN (%)		
1-Year	54.75	38.45
3-Year	9.00	4.91
5-Year	10.75	7.14
Since Jan. 31, 2011	9.46	7.47
ANNUALIZED VOLATILITY (%)		
3-Year	21.75	21.02
5-Year	17.45	16.96
Since Jan. 31, 2011	15.15	14.85
RETURN/VOLATILITY		
3-Year	0.41	0.23
5-Year	0.62	0.42
Since Jan. 31, 2011	0.62	0.50
SINCE JAN. 31, 2011		
Maximum Drawdown (%)	31.68	31.54
Return/Maximum Drawdown	0.48	0.47

COUNTRY WEIGHT (%)



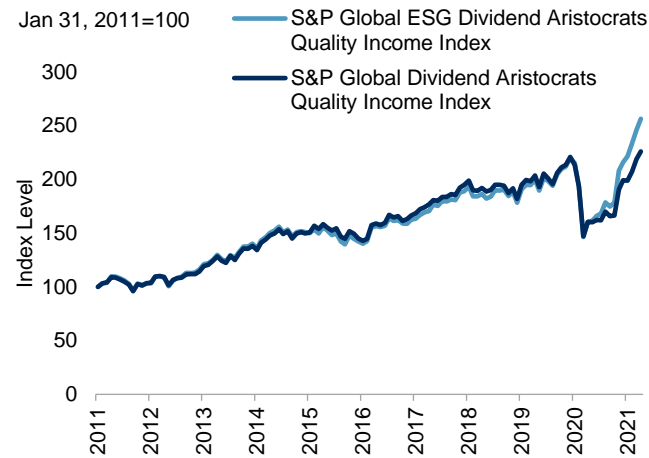
SECTOR WEIGHT (%)



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Index performance based on total return in USD. Past performance is no guarantee of future results. Charts and tables are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 22: S&P Global ESG Dividend Aristocrats Quality Income Index

HISTORICAL PERFORMANCE

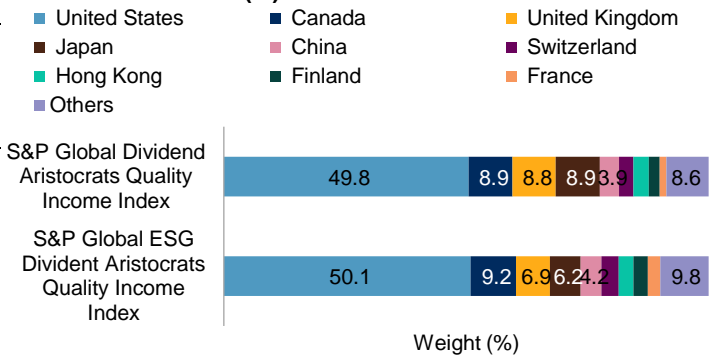


CHARACTERISTICS

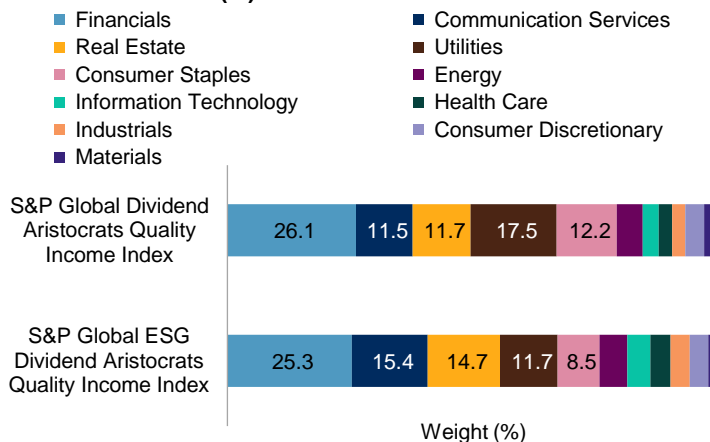
INDEX	NUMBER OF STOCKS	ESG SCORE	INDICATED DIVIDEND YIELD	ACTIVE SHARE AGAINST DIVIDEND ARISTOCRATS
S&P Global ESG Dividend Aristocrats Quality Income Index	95	57.01	4.24	33.65
S&P Global Dividend Aristocrats Quality Income Index	97	46.50	4.75	-

PERIOD	S&P GLOBAL ESG DIVIDEND ARISTOCRATS QUALITY INCOME INDEX	S&P GLOBAL DIVIDEND ARISTOCRATS QUALITY INCOME INDEX
ANNUALIZED RETURN (%)		
1-Year	59.65	40.95
3-Year	11.24	5.60
5-Year	10.35	7.30
Since Jan. 31, 2011	9.62	8.28
ANNUALIZED VOLATILITY (%)		
3-Year	22.05	21.16
5-Year	17.55	16.83
Since Jan. 31, 2011	14.62	14.14
RETURN/VOLATILITY		
3-Year	0.51	0.26
5-Year	0.59	0.43
Since Jan. 31, 2011	0.66	0.59
SINCE JAN. 31, 2011		
Maximum Drawdown (%)	33.35	33.38
Return/Maximum Drawdown	0.44	0.42

COUNTRY WEIGHT (%)



SECTOR WEIGHT (%)



Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Index performance based on total return in USD. Past performance is no guarantee of future results. Charts and tables are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

APPENDIX IV: DATES FOR COVID SELLOFF AND RECOVERY**Exhibit 23: Selloff and Recovery Dates**

REGION	COVID-19 SELLOFF		COVID-19 RECOVERY	
	START	END	START	END
U.S.	Feb. 19, 2020	March 23, 2020	March 23, 2020	March 31, 2021
Eurozone	Feb. 19, 2020	March 18, 2020	March 18, 2020	March 31, 2021
Developed Markets	Feb. 12, 2020	March 23, 2020	March 23, 2020	March 31, 2021
Global	Feb. 12, 2020	March 23, 2020	March 23, 2020	March 31, 2021
Global (Quality Income)	Feb. 12, 2020	March 23, 2020	March 23, 2020	March 31, 2021

Source: S&P Dow Jones Indices LLC. Data as of April 30, 2021. Table is provided for illustrative purposes.

PERFORMANCE DISCLOSURE/BACK-TESTED DATA

The S&P Global ESG Dividend Aristocrats Index was launched March 22, 2021. The S&P ESG High Yield Dividend Aristocrats Index and S&P Global ESG Dividend Aristocrats Quality Income Index were launched March 1, 2021. The S&P Euro ESG High Yield Dividend Aristocrats Index was launched April 6, 2021. The S&P Developed ESG Dividend Aristocrats and S&P Developed Dividend Aristocrats Index were launched November 9, 2020. The S&P Global Dividend Aristocrats Quality Income Index was launched November 4, 2019. The S&P Global Dividend Aristocrats was launched March 26, 2013. The S&P Euro High Yield Dividend Aristocrats was launched January 31, 2012. The S&P 500 ESG Index was launched January 28, 2019. The S&P Europe 350 ESG Index, S&P Global LargeMidCap ESG Index, and S&P Developed LargeMidCap ESG Index were launched May 6, 2019. The S&P Eurozone LargeMidCap Paris-Aligned Climate Index was launched April 20, 2020. The S&P Developed Ex-Korea LargeMidCap Paris-Aligned Climate Index and S&P 500 Paris-Aligned Climate Index were launched June 1, 2020. The S&P Eurozone BMI was launched January 6, 2014. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index 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. Complete index methodology details are available at www.spglobal.com/spdji. Past performance of the Index is not an indication of future results. 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. 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. Back-tested performance is for use with institutions only; not for use with retail investors.

S&P Dow Jones Indices 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 Dow Jones Indices 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.

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 S&P DJI's 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 Dow Jones Indices maintains the index and calculates the index levels and performance shown or discussed but does not manage actual 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).

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