

SPIVA[®] Europe Scorecard

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[INDEXOLOGY[®]](#).

S&P Dow Jones Indices has been the de facto scorekeeper of the ongoing active versus passive debate since the first publication of the S&P Indices Versus Active Funds (SPIVA) U.S. Scorecard in 2002. The SPIVA Europe Scorecard measures the performance of actively managed European equity funds denominated in euro (EUR), British pound sterling (GBP), and other European local currencies against the performance of their respective S&P DJI benchmark indices over 1-, 3-, 5-, and 10-year investment horizons.

YEAR-END 2019 HIGHLIGHTS

- Over the one-year period, 71% of active European equity funds denominated in euros underperformed the [S&P Europe 350[®]](#).
 - On an asset-weighted basis, the benchmark outperformed funds in this category by 1.5%.
- 2019 was a buoyant year for European equities following the sharp downturn that occurred at the end of 2018. Markets proved more resilient in the face of continued trade disputes between the U.S. and China, while a stimulus package from the European Central Bank in September 2019 gave equities a further boost.
 - Over the one-year period, 18 of the 23 equity benchmarks measured in the SPIVA Europe Scorecard posted returns of over 20%.
 - The asset-weighted returns of active fund managers were lower than those of their benchmarks in 15 of the 23 categories.
- Active fund managers investing in single countries in the eurozone largely failed to outperform their benchmarks over the one-year period.
 - Notably, managers with a focus on French, Italian, Dutch, or Spanish Equity underperformed their benchmark by 5% or more on an asset-weighted basis.
 - Only German equity managers were able to beat their benchmark, with funds in this category outperforming the S&P Germany BMI by 90 bps on an asset-weighted basis.

- Emerging market equity funds domiciled in Europe had a more favorable year compared with 2018.
 - Funds denominated in GBP and EUR outperformed their benchmark by 64% and 50% in 2019, respectively.
 - Over the 10-year period, the outperforming emerging market funds were still heavily outnumbered, with 15% and 4% of GBP- and EUR-denominated funds beating their benchmark, respectively.
- European active fund managers with a U.S. or global focus were predominantly outpaced by the [S&P 500®](#) and [S&P Global 1200](#), respectively, over both short- and long-term periods in EUR terms.
 - In 2019, 81% of euro-denominated U.S. equity funds underperformed their benchmark. Over the 10-year period, this rate increased to over 98%. The S&P 500 was up 34% in EUR terms in 2019 and outperformed the U.S. Equity fund category by 3.6% on an asset-weighted basis. Over the 10-year period, this figure rose to 3.8% per year.
 - Similarly, the S&P Global 1200 was up 31% in EUR in 2019, and only 18% of European active funds focused on global equities were able to beat this performance. Fewer than 2% of funds in this category beat the benchmark over the 10-year period.
- Active UK equity funds had a better run than most in 2019; 73% of funds in this category beat the [S&P United Kingdom BMI](#).
 - The majority of funds in both the UK Equity and UK Large-/Mid-Cap Equity categories outperformed their benchmarks in 2019. However, over the same period, 60% of UK Small-Cap equity funds underperformed their benchmark. Furthermore, less than a third of funds outperformed over the 10-year period in each of these three categories.
 - The strength seen in active UK equity funds did not apply to most of the other GBP-denominated fund categories, implying that UK fund managers may generally only have had an advantage on home soil.
 - Two-thirds of pound sterling-denominated active equity funds in the Europe Ex-UK, Global, and U.S. Equity categories underperformed their benchmarks in 2019.

UNIQUE SCORECARD FOR THE ACTIVE VERSUS PASSIVE DEBATE

Since its first publication 18 years ago, the SPIVA Scorecard has served as the de facto scorekeeper of the active versus passive debate. For more than a decade, we have heard passionate arguments from believers in both camps when headline numbers have deviated from their beliefs.

Over the years, we have built on more than a decade of experience publishing the report by expanding coverage into Canada, India, Japan, Australia, Latin America, and South Africa. While the report will not end the debate on active versus passive investing, we hope to make a meaningful contribution by examining market segments in which one strategy might work better than the other.

In 2015, the range of fund categories covered in the SPIVA Europe Scorecard was expanded to include domestic equity funds from Italy, the Netherlands, Poland, Spain, Switzerland, and the Nordic region, with specific data for Denmark and Sweden.

Beyond the SPIVA Scorecard's widely cited headline numbers is a rich data set that addresses issues related to measurement techniques, universe composition, and fund survivorship that are less frequently discussed, but are often more fascinating. These data sets are rooted in the fundamental principles of the SPIVA Scorecard that regular readers will be familiar with, including the following.

- **Survivorship Bias Correction:** Many funds might be liquidated or merged during a period of study. However, for someone making an investment decision at the beginning of the period, these funds are part of the opportunity set. Unlike other commonly available comparison reports, SPIVA Scorecards account for the entire opportunity set—not just the survivors—thereby eliminating survivorship bias.
- **Asset-Weighted Returns:** Average returns for a fund group are often calculated using only equal weighting, which means the returns of a EUR 10 billion fund affect the average in the same manner as the returns of a EUR 10 million fund. An accurate representation of how market participants fared in a particular period can be ascertained by calculating weighted average returns where each fund's return is weighted by net assets. SPIVA Scorecards show both equal- and asset-weighted averages.
- **Data Cleaning:** SPIVA Scorecards avoid double counting multiple share classes in all count-based calculations by using only the share class with greater assets. Index, leveraged, and inverse funds, along with other index-linked products, are excluded because this is meant to be a scorecard for active managers.

REPORTS

Report 1: Percentage of European Equity Funds Outperformed by Benchmarks					
FUND CATEGORY	COMPARISON INDEX	1-YEAR	3-YEAR	5-YEAR	10-YEAR
EURO-DENOMINATED FUNDS (EUR)					
Europe Equity	S&P Europe 350	71.12	79.37	77.54	87.05
Eurozone Equity	S&P Eurozone BMI	78.80	91.15	89.15	90.68
Nordic Equity	S&P Nordic BMI	60.87	88.46	86.21	96.00
Global Equity	S&P Global 1200	81.56	87.54	94.06	98.29
Emerging Markets Equity	S&P/IFCI Composite	50.14	80.12	88.65	96.15
U.S. Equity	S&P 500	81.20	86.67	92.58	98.21
France Equity	S&P France BMI	90.05	99.10	92.00	90.09
Germany Equity	S&P Germany BMI	57.29	68.48	76.04	83.17
Italy Equity	S&P Italy BMI	94.83	87.04	66.67	66.67
Spain Equity	S&P Spain BMI	85.71	83.72	70.51	78.43
Netherlands Equity	S&P Netherlands BMI	100.00	100.00	77.78	96.15
POUND STERLING-DENOMINATED FUNDS (GBP)					
Europe Equity	S&P Europe 350	45.63	66.67	63.54	76.40
Europe Ex-UK Equity	S&P Europe Ex-UK BMI	67.63	75.94	80.95	80.58
UK Equity	S&P United Kingdom BMI	27.47	51.11	63.76	68.22
UK Large-/Mid-Cap Equity	S&P United Kingdom LargeMidCap	29.59	56.29	68.21	69.17
UK Small-Cap Equity	S&P United Kingdom SmallCap	60.00	37.33	45.57	68.24
Global Equity	S&P Global 1200	64.55	76.87	87.05	94.89
Emerging Markets Equity	S&P/IFCI Composite	35.64	66.47	80.00	85.00
U.S. Equity	S&P 500	67.52	77.43	87.91	97.02
FUNDS DENOMINATED IN OTHER EUROPEAN LOCAL CURRENCIES					
Denmark Equity	S&P Denmark BMI	77.78	96.97	66.67	87.88
Poland Equity	S&P Poland BMI	20.00	90.70	79.55	85.00
Switzerland Equity	S&P Switzerland BMI	75.00	83.42	57.30	76.00
Sweden Equity	S&P Sweden BMI	56.36	66.37	61.26	81.48

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2019. Outperformance is based on equal-weighted fund counts. Index performance based on total return. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 2: Survivorship Consistency of European Equity Funds		
FUND CATEGORY	NO. OF FUNDS AT START	SURVIVORSHIP (%)
1-YEAR (EUR)		
Europe Equity	1108	94.22
Eurozone Equity	585	96.58
Nordic Equity	23	95.65
Global Equity	1215	95.64
Emerging Markets Equity	349	92.55
U.S. Equity	399	90.98
France Equity	221	95.02
Germany Equity	96	95.83
Italy Equity	58	94.83
Spain Equity	91	97.80
Netherlands Equity	5	100.00
1-YEAR (GBP)		
Europe Equity	103	93.20
Europe Ex-UK Equity	139	94.96
UK Equity	364	93.96
UK Large-/Mid-Cap Equity	169	90.53
UK Small-Cap Equity	80	100.00
Global Equity	457	94.75
Emerging Markets Equity	188	93.09
U.S. Equity	234	92.74
1-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)		
Denmark Equity	36	97.22
Poland Equity	40	97.50
Switzerland Equity	212	95.28
Sweden Equity	110	84.55
3-YEAR (EUR)		
Europe Equity	1071	85.06
Eurozone Equity	576	89.93
Nordic Equity	26	76.92
Global Equity	1116	83.06
Emerging Markets Equity	322	84.47
U.S. Equity	375	78.67
France Equity	223	87.44
Germany Equity	92	89.13
Italy Equity	54	85.19
Spain Equity	86	90.70
Netherlands Equity	8	62.50

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 2: Survivorship Consistency of European Equity Funds (cont.)		
FUND CATEGORY	NO. OF FUNDS AT START	SURVIVORSHIP (%)
3-YEAR (GBP)		
Europe Equity	108	77.78
Europe Ex-UK Equity	133	87.97
UK Equity	360	85.00
UK Large-/Mid-Cap Equity	167	79.64
UK Small-Cap Equity	75	94.67
Global Equity	415	85.06
Emerging Markets Equity	173	84.97
U.S. Equity	226	79.65
3-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)		
Denmark Equity	33	93.94
Poland Equity	43	90.70
Switzerland Equity	187	85.56
Sweden Equity	113	75.22
5-YEAR (EUR)		
Europe Equity	1033	75.61
Eurozone Equity	590	80.17
Nordic Equity	29	55.17
Global Equity	1077	71.77
Emerging Markets Equity	326	71.47
U.S. Equity	364	71.43
France Equity	225	80.89
Germany Equity	96	79.17
Italy Equity	48	79.17
Spain Equity	78	82.05
Netherlands Equity	9	55.56
5-YEAR (GBP)		
Europe Equity	96	71.88
Europe Ex-UK Equity	126	77.78
UK Equity	367	74.93
UK Large-/Mid-Cap Equity	173	69.36
UK Small-Cap Equity	79	79.75
Global Equity	363	74.38
Emerging Markets Equity	160	73.75
U.S. Equity	215	68.84
5-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)		
Denmark Equity	33	90.91
Poland Equity	44	88.64
Switzerland Equity	178	79.78
Sweden Equity	111	69.37

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 2: Survivorship Consistency of European Equity Funds (cont.)		
FUND CATEGORY	NO. OF FUNDS AT START	SURVIVORSHIP (%)
10-YEAR (EUR)		
Europe Equity	1189	51.14
Eurozone Equity	665	58.20
Nordic Equity	25	48.00
Global Equity	1170	46.75
Emerging Markets Equity	234	61.11
U.S. Equity	392	46.68
France Equity	232	63.79
Germany Equity	101	63.37
Italy Equity	69	49.28
Spain Equity	102	53.92
Netherlands Equity	26	19.23
10-YEAR (GBP)		
Europe Equity	89	40.45
Europe Ex-UK Equity	139	57.55
UK Equity	472	46.82
UK Large-/Mid-Cap Equity	253	38.34
UK Small-Cap Equity	85	60.00
Global Equity	313	46.33
Emerging Markets Equity	80	61.25
U.S. Equity	168	44.64
10-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)		
Denmark Equity	33	72.73
Poland Equity	40	77.50
Switzerland Equity	175	62.86
Sweden Equity	135	47.41

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3: Average European Equity Fund Performance (Equal Weighted)				
CATEGORY	1-YEAR (%)	3-YEAR (ANNUALIZED %)	5-YEAR (ANNUALIZED %)	10-YEAR (ANNUALIZED %)
EURO-DENOMINATED FUNDS (EUR)				
Europe Equity	24.50	6.17	6.26	6.99
S&P Europe 350	27.24	8.28	7.36	8.49
Eurozone Equity	23.15	5.42	6.19	5.79
S&P Eurozone BMI	27.03	8.32	8.41	7.88
Nordic Equity	25.26	6.99	7.86	9.01
S&P Nordic BMI	25.27	8.79	9.25	11.31
Global Equity	25.89	7.77	7.49	8.14
S&P Global 1200	31.02	11.00	11.18	12.71
Emerging Markets Equity	20.81	7.59	5.73	4.46
S&P/IFCI Composite	20.26	9.49	7.89	7.06
U.S. Equity	29.44	9.46	9.75	12.37
S&P 500	33.91	12.90	13.39	16.38
France Equity	22.19	4.40	7.54	6.87
S&P France BMI	29.31	10.70	10.84	9.26
Germany Equity	22.84	5.11	6.13	8.16
S&P Germany BMI	24.67	5.69	7.00	9.16
Italy Equity	25.09	8.24	7.26	4.53
S&P Italy BMI	32.17	10.11	7.96	4.14
Spain Equity	10.02	2.66	2.08	2.12
S&P Spain BMI	15.33	4.65	2.43	2.27
Netherlands Equity	32.98	9.38	10.40	8.28
S&P Netherlands BMI	36.78	13.98	13.03	11.95
POUND STERLING-DENOMINATED FUNDS (GBP)				
Europe Equity	21.40	7.97	9.89	8.89
S&P Europe 350	20.05	7.98	9.25	7.97
Europe Ex-UK Equity	19.71	7.44	9.79	8.25
S&P Europe Ex-UK BMI	21.39	8.90	10.81	8.69
UK Equity	22.47	7.91	8.04	9.38
S&P United Kingdom BMI	18.64	6.73	7.41	8.16
UK Large-/Mid-Cap Equity	20.36	6.57	6.84	8.22
S&P United Kingdom LargeMidCap	16.88	6.04	6.76	7.09
UK Small-Cap Equity	24.88	11.60	11.36	12.75
S&P United Kingdom SmallCap	28.98	10.47	10.25	13.54
Global Equity	21.99	9.60	11.12	9.91
S&P Global 1200	23.43	10.68	13.12	12.20
Emerging Markets Equity	15.69	8.38	8.66	5.33
S&P/IFCI Composite	13.53	9.22	9.80	6.56
U.S. Equity	24.23	10.51	12.89	13.57
S&P 500	26.41	12.63	15.40	15.83
FUNDS DENOMINATED IN OTHER EUROPEAN LOCAL CURRENCIES				
Denmark Equity	25.89	7.75	11.82	14.03
S&P Denmark BMI	30.62	12.39	12.23	15.59
Poland Equity	7.19	0.89	-0.11	-0.91
S&P Poland BMI	-1.93	4.91	2.50	4.06
Switzerland Equity	27.19	10.41	7.97	8.03
S&P Switzerland BMI	30.81	12.86	7.86	8.89
Sweden Equity	34.64	11.97	12.02	12.17
S&P Sweden BMI	34.03	11.79	10.94	12.30

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2019. Index performance based on total return. Funds are equal weighted, but indices are not. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 4: Average European Equity Fund Performance (Asset Weighted)				
CATEGORY	1-YEAR (%)	3-YEAR (ANNUALIZED %)	5-YEAR (ANNUALIZED %)	10-YEAR (ANNUALIZED %)
EURO-DENOMINATED FUNDS (EUR)				
Europe Equity	25.78	6.82	6.53	7.67
S&P Europe 350	27.24	8.28	7.36	8.49
Eurozone Equity	24.35	5.82	6.52	6.11
S&P Eurozone BMI	27.03	8.32	8.41	7.88
Nordic Equity	25.94	6.82	7.82	9.05
S&P Nordic BMI	25.27	8.79	9.25	11.31
Global Equity	27.49	8.32	8.07	8.94
S&P Global 1200	31.02	11.00	11.18	12.71
Emerging Markets Equity	21.90	8.17	6.18	5.07
S&P/IFCI Composite	20.26	9.49	7.89	7.06
U.S. Equity	30.34	9.60	9.91	12.56
S&P 500	33.91	12.90	13.39	16.38
France Equity	23.77	5.38	7.42	6.64
S&P France BMI	29.31	10.70	10.84	9.26
Germany Equity	25.57	5.13	6.62	8.72
S&P Germany BMI	24.67	5.69	7.00	9.16
Italy Equity	25.41	7.81	6.84	4.43
S&P Italy BMI	32.17	10.11	7.96	4.14
Spain Equity	10.36	3.35	2.99	2.74
S&P Spain BMI	15.33	4.65	2.43	2.27
Netherlands Equity	30.87	8.44	9.95	7.71
S&P Netherlands BMI	36.78	13.98	13.03	11.95
POUND STERLING-DENOMINATED FUNDS (GBP)				
Europe Equity	23.50	10.03	11.28	10.10
S&P Europe 350	20.05	7.98	9.25	7.97
Europe Ex-UK Equity	20.63	8.82	10.46	8.85
S&P Europe Ex-UK BMI	21.39	8.90	10.81	8.69
UK Equity	21.42	7.69	7.90	8.88
S&P United Kingdom BMI	18.64	6.73	7.41	8.16
UK Large-/Mid-Cap Equity	19.73	6.81	7.20	8.41
S&P United Kingdom LargeMidCap	16.88	6.04	6.76	7.09
UK Small-Cap Equity	26.23	11.90	11.92	13.79
S&P United Kingdom SmallCap	28.98	10.47	10.25	13.54
Global Equity	23.12	11.11	12.60	10.97
S&P Global 1200	23.43	10.68	13.12	12.20
Emerging Markets Equity	15.60	8.10	8.66	6.17
S&P/IFCI Composite	13.53	9.22	9.80	6.56
U.S. Equity	24.31	10.37	13.11	13.37
S&P 500	26.41	12.63	15.40	15.83
FUNDS DENOMINATED IN OTHER EUROPEAN LOCAL CURRENCIES				
Denmark Equity	27.13	8.34	11.93	13.95
S&P Denmark BMI	30.62	12.39	12.23	15.59
Poland Equity	4.40	0.28	-1.02	-3.51
S&P Poland BMI	-1.93	4.91	2.50	4.06
Switzerland Equity	29.32	11.83	8.80	8.82
S&P Switzerland BMI	30.81	12.86	7.86	8.89
Sweden Equity	33.70	11.50	11.64	12.08
S&P Sweden BMI	34.03	11.79	10.94	12.30

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2019. Index performance based on total returns. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 5: Quartile Breakpoints of European Equity Funds			
FUND CATEGORY	THIRD QUARTILE (ANNUALIZED, %)	SECOND QUARTILE (ANNUALIZED, %)	FIRST QUARTILE (ANNUALIZED, %)
1-YEAR (EUR)			
Europe Equity	20.89	24.79	28.37
Eurozone Equity	20.54	23.59	26.61
Nordic Equity	20.39	22.70	29.44
Global Equity	22.85	26.26	29.93
Emerging Markets Equity	17.76	20.87	24.88
U.S. Equity	26.98	30.35	33.29
France Equity	17.91	23.23	26.76
Germany Equity	19.23	24.17	27.85
Italy Equity	23.61	26.31	28.05
Spain Equity	6.36	9.84	12.84
Netherlands Equity	33.55	33.91	35.61
1-YEAR (GBP)			
Europe Equity	16.69	20.84	25.36
Europe Ex-UK Equity	16.73	19.92	22.87
UK Equity	18.98	22.23	28.37
UK Large-/Mid-Cap Equity	17.01	20.17	23.09
UK Small-Cap Equity	20.61	26.82	31.63
Global Equity	18.73	21.58	25.27
Emerging Markets Equity	12.74	16.06	19.84
U.S. Equity	21.31	24.67	27.58
1-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)			
Denmark Equity	24.49	28.32	30.44
Poland Equity	-0.09	4.74	11.45
Switzerland Equity	26.41	29.08	30.90
Sweden Equity	29.96	34.57	38.66
3-YEAR (EUR)			
Europe Equity	4.45	6.20	8.20
Eurozone Equity	3.87	5.59	7.05
Nordic Equity	5.67	7.01	8.11
Global Equity	6.09	7.53	9.60
Emerging Markets Equity	6.21	7.54	9.31
U.S. Equity	7.10	9.47	11.78
France Equity	1.80	5.01	7.46
Germany Equity	2.75	4.70	7.31
Italy Equity	6.63	8.51	9.35
Spain Equity	1.05	2.45	4.10
Netherlands Equity	8.36	8.73	10.75
3-YEAR (GBP)			
Europe Equity	5.33	7.45	10.23
Europe Ex-UK Equity	5.86	7.33	9.67
UK Equity	5.34	7.49	11.65
UK Large-/Mid-Cap Equity	4.82	6.35	7.47
UK Small-Cap Equity	9.08	12.19	14.98
Global Equity	7.12	8.62	11.12
Emerging Markets Equity	6.60	8.51	10.48
U.S. Equity	7.38	10.35	13.04
3-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)			
Denmark Equity	6.64	8.38	9.92
Poland Equity	-5.29	-0.51	2.27
Switzerland Equity	9.27	11.47	12.43
Sweden Equity	9.97	11.38	14.21

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2019. Index performance based on total returns. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 5: Quartile Breakpoints of European Equity Funds (cont.)			
FUND CATEGORY	THIRD QUARTILE (ANNUALIZED, %)	SECOND QUARTILE (ANNUALIZED, %)	FIRST QUARTILE (ANNUALIZED, %)
5-YEAR (EUR)			
Europe Equity	4.56	6.01	8.00
Eurozone Equity	4.65	6.07	7.51
Nordic Equity	7.20	8.45	9.32
Global Equity	6.30	7.66	9.23
Emerging Markets Equity	4.61	5.41	7.07
U.S. Equity	8.19	9.79	11.53
France Equity	5.92	7.76	9.27
Germany Equity	4.15	5.72	7.13
Italy Equity	5.36	7.68	8.45
Spain Equity	-0.50	1.27	4.64
Netherlands Equity	9.61	9.87	13.99
5-YEAR (GBP)			
Europe Equity	7.20	9.76	12.25
Europe Ex-UK Equity	8.25	9.31	10.74
UK Equity	6.00	7.61	11.22
UK Large-/Mid-Cap Equity	5.56	6.62	7.59
UK Small-Cap Equity	9.22	11.97	13.97
Global Equity	9.10	10.65	12.38
Emerging Markets Equity	7.23	8.26	9.89
U.S. Equity	10.97	12.73	14.43
5-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)			
Denmark Equity	10.91	11.94	13.08
Poland Equity	-1.73	0.45	2.37
Switzerland Equity	6.70	8.03	9.85
Sweden Equity	9.69	11.25	15.02
10-YEAR (EUR)			
Europe Equity	5.49	6.88	8.55
Eurozone Equity	4.53	5.83	6.98
Nordic Equity	8.47	9.34	10.28
Global Equity	7.20	8.59	10.09
Emerging Markets Equity	3.42	4.45	5.29
U.S. Equity	11.07	12.62	13.95
France Equity	5.71	6.89	8.15
Germany Equity	6.66	8.06	9.43
Italy Equity	3.66	4.68	5.91
Spain Equity	0.41	1.85	3.44
Netherlands Equity	8.09	8.13	11.19
10-YEAR (GBP)			
Europe Equity	7.07	8.93	11.21
Europe Ex-UK Equity	7.12	7.72	9.12
UK Equity	7.86	9.42	12.91
UK Large-/Mid-Cap Equity	7.24	8.21	9.23
UK Small-Cap Equity	12.38	14.42	15.56
Global Equity	8.50	9.62	11.19
Emerging Markets Equity	4.32	5.69	6.52
U.S. Equity	12.33	13.31	14.44
10-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)			
Denmark Equity	13.09	13.63	13.99
Poland Equity	-0.73	1.54	3.73
Switzerland Equity	7.35	8.24	9.56
Sweden Equity	10.82	11.71	15.69

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods Dec. 31, 2019. Index performance based on total returns. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

APPENDIX A

SPIVA Styles and Morningstar Fund Classifications

Data from Morningstar Europe is obtained for all managed funds for which month-end data is available during the performance period. The data includes funds domiciled in European markets. Offshore European equity funds are excluded. Funds are classified based on the Morningstar fund classification system, and the SPIVA Scorecard covers European and global equity categories.

European Equity Funds Denominated in EUR, GBP, and Other European Local Currencies

The SPIVA Europe Scorecard covers both regional and country-specific funds that are denominated in EUR, GBP, and other European local currencies, and they have been mapped to the relevant Morningstar fund categories as we indicate here. The Morningstar classification system produces narrow, style-based classifications for funds, particularly in relation to European and international equities. S&P Dow Jones Indices has consolidated the style-based categories in order to generate a larger sample size and develop a broad-market comparison to market-based benchmarks. A narrow, style-based comparison would yield a limited sample size, given that value and growth style segments are not consistently discernible over the past five years.

Morningstar categories have been mapped to SPIVA peer groups in the following manner.

Exhibit 1: Morningstar Categories and SPIVA Peer Groups for European Equity Funds	
EUROPEAN FUNDS DENOMINATED IN EUROS (EUR)	
MORNINGSTAR CATEGORY	SPIVA CATEGORY
EAA Fund Europe Flex-Cap Equity	Europe Equity
EAA Fund Europe Large-Cap Blend Equity	
EAA Fund Europe Large-Cap Growth Equity	
EAA Fund Europe Large-Cap Value Equity	
EAA Fund Europe Mid-Cap Equity	
EAA Fund Europe Small-Cap Equity	Eurozone Equity
EAA Fund Eurozone Flex-Cap Equity	
EAA Fund Eurozone Large-Cap Equity	
EAA Fund Eurozone Mid-Cap Equity	
EAA Fund Eurozone Small-Cap Equity	France Equity
EAA Fund France Large-Cap Equity	
EAA Fund France Small-/Mid-Cap Equity	Germany Equity
EAA Fund Germany Large-Cap Equity	
EAA Fund Germany Small-/Mid-Cap Equity	Italy Equity
EAA Fund Italy Equity	
EAA Fund Netherlands Equity	Netherlands Equity
EAA Fund Nordic Equity	Nordic Equity
EAA Fund Spain Equity	Spain Equity

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

Exhibit 1: Morningstar Categories and SPIVA Peer Groups for European Equity Funds (cont.)	
EUROPEAN FUNDS DENOMINATED IN POUND STERLING (GBP)	
MORNINGSTAR CATEGORY	SPIVA CATEGORY
EAA Fund Europe Flex-Cap Equity	Europe Equity
EAA Fund Europe Large-Cap Blend Equity	
EAA Fund Europe Large-Cap Growth Equity	
EAA Fund Europe Large-Cap Value Equity	
EAA Fund Europe Mid-Cap Equity	
EAA Fund Europe Small-Cap Equity	Europe Ex-UK Equity
EAA Fund Europe Ex-UK Large-Cap Equity	
EAA Fund Europe Ex-UK Small-/Mid-Cap Equity	UK Large-/Mid-Cap Equity
EAA Fund UK Large-Cap Blend Equity	
EAA Fund UK Large-Cap Growth Equity	
EAA Fund UK Large-Cap Value Equity	
EAA Fund UK Mid-Cap Equity	UK Small-Cap Equity
EAA Fund UK Small-Cap Equity	
EAA Fund UK Large-Cap Blend Equity	UK Equity
EAA Fund UK Large-Cap Growth Equity	
EAA Fund UK Large-Cap Value Equity	
EAA Fund UK Mid-Cap Equity	
EAA Fund UK Small-Cap Equity	
EAA Fund UK Flex-Cap Equity	
EUROPEAN FUNDS DENOMINATED IN OTHER EUROPEAN LOCAL CURRENCIES	
EAA Fund Denmark Equity	Denmark Equity
EAA Fund Poland Equity	Poland Equity
EAA Fund Sweden Large-Cap Equity	Sweden Equity
EAA Fund Sweden Small/Mid-Cap Equity	
EAA Fund Switzerland Small/Mid-Cap Equity	Switzerland Equity
EAA Fund Switzerland Large-Cap Equity	

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

International Funds Denominated in EUR and GBP

For international equities, the SPIVA Europe Scorecard reports on three major categories (U.S., global, and global emerging markets) in both EUR and GBP. These categories also include multiple Morningstar classifications.

Exhibit 2: Morningstar Categories and SPIVA Peer Groups for International Equity Funds

EUR and GBP-DENOMINATED INTERNATIONAL FUNDS

MORNINGSTAR CATEGORY	SPIVA CATEGORY
EAA Fund Global Large-Cap Blend Equity	
EAA Fund Global Large-Cap Growth Equity	Global Equity
EAA Fund Global Large-Cap Value Equity	
EAA Fund Global Small-Cap Equity	
EAA Fund U.S. Large-Cap Blend Equity	
EAA Fund U.S. Large-Cap Growth Equity	
EAA Fund U.S. Large-Cap Value Equity	U.S. Equity
EAA Fund U.S. Mid-Cap Equity	
EAA Fund U.S. Flex-Cap Equity	
EAA Fund U.S. Small-Cap Equity	
EAA Fund Global Emerging Markets Equity	Emerging Markets Equity

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

APPENDIX B

Glossary–Reports

PERCENTAGE OF FUNDS OUTPERFORMED BY THE INDEX

To correct for survivorship bias, we use the opportunity set available at the beginning of the period as the denominator. We determine the count of funds that have survived and beat the index. We then report the index outperformance percentage.

SURVIVORSHIP (%)

The survivorship measure represents the percentage of funds in existence at the beginning of the time period that are still active at the end of the time period.

EQUAL-WEIGHTED FUND PERFORMANCE

Equal-weighted returns for a particular style category are determined by calculating a simple average return of all active funds in that category in a particular month.

ASSET-WEIGHTED FUND PERFORMANCE

Asset-weighted returns for a particular style category are determined by calculating a weighted average return of all funds in that category in a particular month, with each fund's return weighted by its total net assets. Asset-weighted returns are a better indicator of fund category performance because they reflect the returns of the total money invested in that particular style category with more accuracy.

QUARTILE BREAKPOINTS

The p^{th} percentile for a set of data is the value that is greater than or equal to $p\%$ of the data but is less than or equal to $(100-p)\%$ of the data. In other words, it is a value that divides the data into two parts: the lower $p\%$ of the values and the upper $(100-p)\%$ of the values. The first quartile is the 75th percentile, which is the value separating the elements of a population into the lower 75% and the upper 25%. The second quartile is the 50th percentile, and the third quartile is the 25th percentile. For fund category quartiles in a particular time horizon, the data used is the return of the largest surviving share class of the fund net of fees, excluding loads.

SURVIVORSHIP BIAS

Many funds might liquidate or merge during a period of study. This usually occurs due to continued poor performance by the fund. Therefore, if index returns were compared to fund returns using only surviving funds, the comparison would be biased in favor of the fund category. The SPIVA reports remove this bias in three ways. The first method to remove the bias is to use the entire investment opportunity set, made up of all funds in that particular category at the outset of the period, as the denominator for outperformance calculations. The second is explicitly to show the survivorship rate in each category. The final way is to construct a peer average return series for each category based on all available funds at the outset of the period.

FEES

The fund returns used are net of fees, excluding loads.

Indices

A benchmark index provides an investment vehicle against which fund performance can be measured.

S&P 500

Widely regarded as the best single gauge of the U.S. equities market, this market-capitalization-weighted index includes a representative sample of the 500 leading companies in the leading industries of the U.S. economy and provides over 80% coverage of U.S. equities.

S&P/IFCI COMPOSITE

The [S&P/IFCI Composite](#) is widely recognized as a comprehensive and reliable measure of the world's emerging markets. It measures the returns of stocks that are legally and practically available to foreign investors.

S&P DENMARK BMI

The S&P Denmark BMI, a subset of the [S&P Global BMI](#), is an equity index that is designed to represent the Danish stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P EUROPE 350

Covering approximately 70% of the region's market capitalization, the S&P Europe 350 is an equity index drawn from 17 major European markets.

S&P EUROPE EX-UK BMI

The S&P Europe ex-UK BMI, a subset of the S&P Global BMI, is designed to represent the stock markets of Europe, excluding the UK. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P EUROZONE BMI

The [S&P Eurozone BMI](#), a subset of the S&P Global BMI, is designed to represent the stock markets of European countries that adopt the euro currency.

S&P FRANCE BMI

The S&P France BMI, a subset of the S&P Global BMI, is an equity index that is designed to represent the French stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P GERMANY BMI

The S&P Germany BMI, a subset of the S&P Global BMI, is an equity index that is designed to represent the German stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P GLOBAL 1200

Capturing approximately 70% of the world's capital markets, the [S&P Global 1200](#) is a composite of seven headline indices, many of which are accepted leaders in their regions. It includes the S&P 500 (U.S.), S&P Europe 350 (Europe), [S&P/TOPIX 150](#) (Japan), [S&P/TSX 60](#) (Canada), [S&P/ASX All Australian 50](#) (Australia), [S&P Asia 50](#) (Asia Ex-Japan), and [S&P Latin America 40](#) (Latin America).

S&P ITALY BMI

The S&P Italy BMI, a subset of the S&P Global BMI, is an equity index that is designed to represent the Italian stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P NETHERLANDS BMI

The S&P Netherlands BMI, a subset of the S&P Global BMI, is an equity index that is designed to represent the Dutch stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P NORDIC BMI

The S&P Nordic BMI, a subset of the S&P Global BMI, is an equity index that is designed to represent the Swedish, Danish, Norwegian, and Finnish stock markets. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P POLAND BMI

The S&P Poland BMI, a subset of the S&P Global BMI, is an equity index that is designed to represent the Polish stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P SPAIN BMI

The S&P Spain BMI, a subset of the S&P Global BMI, is an equity index that is designed to represent the Spanish stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P SWEDEN BMI

The S&P Sweden BMI, a subset of the S&P Global BMI, is an equity index that is designed to represent the Swedish stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P SWITZERLAND BMI

The S&P Switzerland BMI, a subset of the S&P Global BMI, is an equity index that is designed to represent the Swiss stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P UNITED KINGDOM BMI

The [S&P United Kingdom BMI](#), a subset of the S&P Global BMI, is an equity index that is designed to represent the UK stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P UNITED KINGDOM LARGEMIDCAP

The [S&P United Kingdom LargeMidCap](#), a subset of the S&P Global BMI, is an equity index that is designed to represent the large- and mid-cap companies of the UK stock market and covers approximately 85% of the float market cap. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

S&P UNITED KINGDOM SMALLCAP

The [S&P United Kingdom SmallCap](#), a subset of the S&P Global BMI, is an equity index that is designed to represent the small-cap companies of the UK stock market. The S&P Global BMI is a comprehensive, rules-based index designed to measure global stock market performance.

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