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SPIVA[®] Europe Scorecard

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.

MID-YEAR 2018 HIGHLIGHTS

- Of the active pan-European equity funds (euro-denominated), 59% failed to beat the [S&P Europe 350[®]](#) from June 2017 to June 2018.
 - The mean one-year performance for the fund category was 28 bps higher than the benchmark. This may indicate the minority of funds outperformed sufficiently to prop up the group's average.
 - The proportion of funds in the category failing to beat the same benchmark rose to 87% over the 10-year period.
- Volatility reappeared in Q1 2018, but ultimately European equity markets remained resilient.
 - The S&P Europe 350 was up 3.5% (in euros) year-over-year in June 2018.
 - Recent eurozone GDP data pointed to stable growth in the first half of 2018, albeit lower than 2017.
 - The ECB's announcement to keep historically low interest rates through the summer of 2019 was received favorably by the markets, despite it also announcing that it will end its quantitative easing program by the end of 2019.
- The track record for euro-denominated active funds investing in either U.S. or global equities remained bleak.
 - Over the 10-year period ending in June 2018, only 11 out of 490 eligible active funds investing in U.S. equities (denominated in euros) survived and outperformed the [S&P 500[®]](#).
 - The equivalent figure for the euro-denominated Global Equity fund category was 15 out of 1,396 funds that survived and outperformed the [S&P Global 1200](#).

- The S&P 500 outperformed many European benchmark indices; up 11.7 % in euro terms over the one-year period ending in June 2018.
 - U.S. tax cuts and fiscal stimulus supported a wide earnings gap for U.S. corporates over Europe and elsewhere.
 - Lifted by large exposure to the U.S., the [S&P Global 1200](#) posted a return of 9.1% in euros.
- The desynchronization of global growth and central banks' policies hindered emerging markets. Active funds investing in these regions from within Europe generally did not find stock picking to be advantageous.
 - Rising geopolitical risk, oil prices, trade tariffs, and a general strengthening of the U.S. dollar in the first half of 2018 weighed least favorably on emerging markets' growth expectations.
 - Emerging markets experienced significant sell-offs in H1 2018. However, gains from the second half of 2017 resulted in the broad emerging equities benchmark, the [S&P/IFCI](#), returning 6.3% year-over-year in euro terms as of mid-year 2018.
 - The asset-weighted performance of active emerging market equity funds (denominated in EUR) was 3.0% for the same period.
 - One in five of these funds beat the returns of the benchmark over the one-year period ending in June 2018. This success rate falls to 1 in 100 over the 10-year period.
- A handful of single-country fund categories across Europe outperformed their respective benchmarks in the one-year period ending June 2018.
 - On an asset-weighted basis, the average performance of active equity funds in Spain, Switzerland, Sweden, and small-cap companies in the UK was better than their respective benchmarks over the one-year period.
 - On the same basis, France, Germany, Italy, Netherlands, Denmark, and Poland active equity funds underperformed their respective benchmarks.

UNIQUE SCORECARD FOR THE ACTIVE VERSUS PASSIVE DEBATE

Since its first publication 16 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	ONE-YEAR	THREE-YEAR	FIVE-YEAR	TEN-YEAR
EURO-DENOMINATED FUNDS (EUR)					
Europe Equity	S&P Europe 350	58.83	62.82	74.30	87.03
Eurozone Equity	S&P Eurozone BMI	82.97	81.72	89.45	89.71
Nordic Equity	S&P Nordic BMI	75.00	83.33	86.67	89.66
Global Equity	S&P Global 1200	82.08	92.11	95.71	98.93
Emerging Markets Equity	S&P/IFCI	80.82	87.23	93.13	98.74
U.S. Equity	S&P 500	70.43	89.62	92.06	97.76
France Equity	S&P France BMI	89.50	64.25	73.48	82.71
Germany Equity	S&P Germany BMI	59.55	64.13	74.19	79.65
Italy Equity	S&P Italy BMI	78.69	44.00	72.00	72.29
Spain Equity	S&P Spain BMI	30.23	52.38	71.43	80.65
Netherlands Equity	S&P Netherlands BMI	100.00	77.78	84.62	93.10
POUND STERLING-DENOMINATED FUNDS (GBP)					
Europe Equity	S&P Europe 350	41.51	50.52	60.87	73.20
Europe Ex-UK Equity	S&P Europe Ex-UK BMI	57.04	74.42	77.87	76.35
UK Equity	S&P United Kingdom BMI	51.01	65.11	54.64	74.67
UK Large-/Mid-Cap Equity	S&P United Kingdom LargeMidCap	60.33	83.33	53.62	72.87
UK Small-Cap Equity	S&P United Kingdom SmallCap	35.29	31.94	45.21	80.25
Global Equity	S&P Global 1200	71.93	86.27	86.61	94.44
Emerging Markets Equity	S&P/IFCI	73.14	74.07	81.75	88.41
U.S. Equity	S&P 500	58.26	82.96	85.64	93.89
FUNDS DENOMINATED IN OTHER EUROPEAN LOCAL CURRENCIES					
Denmark Equity	S&P Denmark BMI	91.18	5.88	25.00	73.53
Poland Equity	S&P Poland BMI	73.91	65.96	72.00	78.38
Switzerland Equity	S&P Switzerland BMI	33.16	31.61	47.13	75.00
Sweden Equity	S&P Sweden BMI	46.43	51.33	50.43	76.69

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2018. 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 (%)
ONE-YEAR (EUR)		
Europe Equity	1101	95.73
Eurozone Equity	562	95.37
Nordic Equity	25	96.00
Global Equity	1294	93.82
Emerging Markets Equity	329	95.44
U.S. Equity	391	94.37
France Equity	219	94.06
Germany Equity	90	97.78
Italy Equity	61	93.44
Spain Equity	87	95.40
Netherlands Equity	8	87.50
ONE-YEAR (GBP)		
Europe Equity	114	93.86
Europe Ex-UK Equity	140	95.71
UK Equity	359	94.99
UK Large-/Mid-Cap Equity	193	94.30
UK Small-Cap Equity	70	95.71
Global Equity	454	96.92
Emerging Markets Equity	183	95.63
U.S. Equity	240	92.92
ONE-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)		
Denmark Equity	34	97.06
Poland Equity	64	100.00
Switzerland Equity	195	97.95
Sweden Equity	113	94.69
THREE-YEAR (EUR)		
Europe Equity	1066	85.46
Eurozone Equity	585	85.30
Nordic Equity	31	70.97
Global Equity	1215	82.80
Emerging Markets Equity	334	81.74
U.S. Equity	380	84.21
France Equity	222	87.84
Germany Equity	94	88.30
Italy Equity	50	86.00
Spain Equity	84	85.71
Netherlands Equity	9	66.67

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2018. 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 (%)
THREE-YEAR (GBP)		
Europe Equity	101	86.14
Europe Ex-UK Equity	134	85.82
UK Equity	374	84.76
UK Large-/Mid-Cap Equity	199	83.42
UK Small-Cap Equity	73	86.30
Global Equity	411	83.70
Emerging Markets Equity	167	82.63
U.S. Equity	232	78.88
THREE-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)		
Denmark Equity	34	94.12
Poland Equity	65	98.46
Switzerland Equity	178	88.20
Sweden Equity	114	79.82
FIVE-YEAR (EUR)		
Europe Equity	1059	73.75
Eurozone Equity	601	74.88
Nordic Equity	31	54.84
Global Equity	1190	70.17
Emerging Markets Equity	330	70.30
U.S. Equity	360	73.89
France Equity	231	74.89
Germany Equity	93	79.57
Italy Equity	50	76.00
Spain Equity	79	78.48
Netherlands Equity	13	46.15
FIVE-YEAR (GBP)		
Europe Equity	94	69.15
Europe Ex-UK Equity	127	74.80
UK Equity	395	72.41
UK Large-/Mid-Cap Equity	212	70.28
UK Small-Cap Equity	74	75.68
Global Equity	360	72.22
Emerging Markets Equity	139	73.38
U.S. Equity	191	69.11
FIVE-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)		
Denmark Equity	32	93.75
Poland Equity	68	94.12
Switzerland Equity	177	77.97
Sweden Equity	118	70.34

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2018. 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 (%)
TEN-YEAR (EUR)		
Europe Equity	1416	44.56
Eurozone Equity	797	46.68
Nordic Equity	31	51.61
Global Equity	1448	42.54
Emerging Markets Equity	243	55.56
U.S. Equity	506	39.33
France Equity	296	51.01
Germany Equity	113	52.21
Italy Equity	83	39.76
Spain Equity	125	44.80
Netherlands Equity	29	17.24
TEN-YEAR (GBP)		
Europe Equity	97	37.11
Europe Ex-UK Equity	152	54.61
UK Equity	532	42.86
UK Large-/Mid-Cap Equity	322	38.82
UK Small-Cap Equity	82	52.44
Global Equity	340	46.47
Emerging Markets Equity	72	59.72
U.S. Equity	187	39.04
TEN-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)		
Denmark Equity	34	73.53
Poland Equity	50	88.00
Switzerland Equity	162	62.96
Sweden Equity	135	49.63

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2018. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3: Average European Equity Fund Performance (Equal Weighted)				
CATEGORY	ONE-YEAR (%)	THREE-YEAR (ANNUALIZED %)	FIVE-YEAR (ANNUALIZED %)	TEN-YEAR (ANNUALIZED %)
EURO-DENOMINATED FUNDS (EUR)				
Europe Equity	3.75	3.55	9.17	5.44
S&P Europe 350	3.47	3.17	9.24	6.28
Eurozone Equity	2.24	4.28	9.47	4.53
S&P Eurozone BMI	4.72	5.90	11.52	5.67
Nordic Equity	2.21	4.40	10.15	6.81
S&P Nordic BMI	2.39	5.47	11.67	8.36
Global Equity	6.24	4.61	9.69	5.97
S&P Global 1200	9.09	7.57	12.94	10.10
Emerging Markets Equity	2.90	2.63	5.70	3.05
S&P/IFCI	6.28	4.78	8.43	6.31
U.S. Equity	9.76	6.97	12.74	9.72
S&P 500	11.73	10.20	15.88	13.52
France Equity	2.55	8.05	12.13	6.54
S&P France BMI	7.66	8.18	12.16	7.36
Germany Equity	3.19	5.66	9.81	6.96
S&P Germany BMI	2.46	5.57	10.38	7.14
Italy Equity	4.85	2.37	10.69	2.09
S&P Italy BMI	7.86	2.44	11.05	1.17
Spain Equity	0.73	2.32	9.15	2.65
S&P Spain BMI	-3.75	0.22	9.16	2.12
Netherlands Equity	4.96	7.11	12.14	4.88
S&P Netherlands BMI	8.83	8.65	15.06	9.29
POUND STERLING-DENOMINATED FUNDS (GBP)				
Europe Equity	6.09	12.12	11.17	8.10
S&P Europe 350	4.18	11.07	9.94	7.48
Europe Ex-UK Equity	3.75	12.38	11.29	8.72
S&P Europe Ex-UK BMI	3.52	12.98	11.70	8.00
UK Equity	9.71	9.26	10.14	8.88
S&P United Kingdom BMI	9.03	9.49	8.69	7.95
UK Large-/Mid-Cap Equity	7.85	7.93	8.73	7.91
S&P United Kingdom LargeMidCap	8.35	9.37	7.87	6.91
UK Small-Cap Equity	15.72	14.27	14.85	12.43
S&P United Kingdom SmallCap	12.72	9.72	12.39	13.12
Global Equity	8.86	13.35	11.61	8.93
S&P Global 1200	10.05	15.81	13.69	11.34
Emerging Markets Equity	4.17	11.89	7.45	7.09
S&P/IFCI	7.04	12.82	9.12	7.50
U.S. Equity	12.98	16.46	14.93	12.66
S&P 500	12.53	18.65	16.61	14.78
FUNDS DENOMINATED IN OTHER EUROPEAN LOCAL CURRENCIES				
Denmark Equity	-0.58	8.19	18.69	11.08
S&P Denmark BMI	3.27	4.80	17.12	11.12
Poland Equity	-11.84	-1.54	0.44	3.09
S&P Poland BMI	-6.47	1.95	4.80	3.44
Switzerland Equity	4.97	9.36	10.25	5.95
S&P Switzerland BMI	1.78	4.99	7.43	6.37
Sweden Equity	4.63	9.61	14.83	11.68
S&P Sweden BMI	3.29	7.82	13.05	11.55

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2018. 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	ONE-YEAR (%)	THREE-YEAR (ANNUALIZED %)	FIVE-YEAR (ANNUALIZED %)	TEN-YEAR (ANNUALIZED %)
EURO-DENOMINATED FUNDS (EUR)				
Europe Equity	4.02	3.26	8.88	5.47
S&P Europe 350	3.47	3.17	9.24	6.28
Eurozone Equity	2.26	4.07	9.44	4.37
S&P Eurozone BMI	4.72	5.90	11.52	5.67
Nordic Equity	1.94	3.65	9.66	6.53
S&P Nordic BMI	2.39	5.47	11.67	8.36
Global Equity	5.77	4.49	9.92	6.28
S&P Global 1200	9.09	7.57	12.94	10.10
Emerging Markets Equity	2.99	2.63	6.25	3.51
S&P/IFCI	6.28	4.78	8.43	6.31
U.S. Equity	9.09	6.61	12.62	9.85
S&P 500	11.73	10.20	15.88	13.52
France Equity	2.63	6.49	10.70	5.73
S&P France BMI	7.66	8.18	12.16	7.36
Germany Equity	1.79	5.53	10.21	7.41
S&P Germany BMI	2.46	5.57	10.38	7.14
Italy Equity	5.51	2.09	10.46	1.87
S&P Italy BMI	7.86	2.44	11.05	1.17
Spain Equity	1.27	2.88	9.22	2.98
S&P Spain BMI	-3.75	0.22	9.16	2.12
Netherlands Equity	5.33	7.19	11.79	4.77
S&P Netherlands BMI	8.83	8.65	15.06	9.29
POUND STERLING-DENOMINATED FUNDS (GBP)				
Europe Equity	8.83	14.22	12.30	9.38
S&P Europe 350	4.18	11.07	9.94	7.48
Europe Ex-UK Equity	5.85	12.92	11.54	8.30
S&P Europe Ex-UK BMI	3.52	12.98	11.70	8.00
UK Equity	9.93	9.24	9.69	8.46
S&P United Kingdom BMI	9.03	9.49	8.69	7.95
UK Large-/Mid-Cap Equity	8.61	8.44	9.01	7.97
S&P United Kingdom LargeMidCap	8.35	9.37	7.87	6.91
UK Small-Cap Equity	15.12	14.66	15.08	12.92
S&P United Kingdom SmallCap	12.72	9.72	12.39	13.12
Global Equity	10.78	15.28	13.10	9.73
S&P Global 1200	10.05	15.81	13.69	11.34
Emerging Markets Equity	4.02	11.96	7.43	6.90
S&P/IFCI	7.04	12.82	9.12	7.50
U.S. Equity	12.68	16.68	15.17	12.82
S&P 500	12.53	18.65	16.61	14.78
FUNDS DENOMINATED IN OTHER EUROPEAN LOCAL CURRENCIES				
Denmark Equity	-0.77	7.86	18.45	11.00
S&P Denmark BMI	3.27	4.80	17.12	11.12
Poland Equity	-11.48	-2.10	0.39	-0.08
S&P Poland BMI	-6.47	1.95	4.80	3.44
Switzerland Equity	5.30	9.46	10.48	6.37
S&P Switzerland BMI	1.78	4.99	7.43	6.37
Sweden Equity	4.34	9.52	14.59	11.66
S&P Sweden BMI	3.29	7.82	13.05	11.55

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2018. 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, %)
ONE-YEAR (EUR)			
Europe Equity	0.47	2.90	5.60
Eurozone Equity	-0.45	1.64	3.60
Nordic Equity	-1.49	0.97	2.33
Global Equity	3.31	5.63	8.22
Emerging Markets Equity	0.72	3.09	5.63
U.S. Equity	6.80	9.47	12.55
France Equity	0.30	2.98	5.37
Germany Equity	-1.41	1.66	5.89
Italy Equity	3.27	5.64	7.46
Spain Equity	-4.00	0.27	3.90
Netherlands Equity	2.60	4.50	5.84
ONE-YEAR (GBP)			
Europe Equity	2.29	5.78	9.33
Europe Ex-UK Equity	0.83	2.94	6.22
UK Equity	6.96	9.29	12.77
UK Large-/Mid-Cap Equity	5.95	7.95	10.11
UK Small-Cap Equity	9.61	17.04	19.13
Global Equity	5.45	7.94	10.64
Emerging Markets Equity	1.97	4.77	7.46
U.S. Equity	8.97	12.05	15.45
ONE-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)			
Denmark Equity	-1.57	-0.19	1.38
Poland Equity	-16.76	-10.18	-6.26
Switzerland Equity	1.36	3.35	6.67
Sweden Equity	1.17	4.02	7.55
THREE-YEAR (EUR)			
Europe Equity	1.00	2.62	5.21
Eurozone Equity	1.94	3.41	5.38
Nordic Equity	3.05	3.89	5.05
Global Equity	2.80	4.41	5.93
Emerging Markets Equity	1.12	2.51	4.00
U.S. Equity	5.46	7.00	8.96
France Equity	4.60	6.35	11.24
Germany Equity	3.11	4.68	6.79
Italy Equity	1.31	3.04	4.68
Spain Equity	-1.73	1.03	4.38
Netherlands Equity	6.89	7.41	9.75
THREE-YEAR (GBP)			
Europe Equity	9.53	11.77	15.39
Europe Ex-UK Equity	10.41	11.74	13.47
UK Equity	6.85	8.95	11.30
UK Large-/Mid-Cap Equity	6.59	8.03	9.23
UK Small-Cap Equity	10.91	13.59	17.24
Global Equity	11.24	13.20	15.13
Emerging Markets Equity	9.96	11.77	13.60
U.S. Equity	14.45	16.67	18.12
THREE-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)			
Denmark Equity	7.19	8.07	9.01
Poland Equity	-3.38	-0.18	2.77
Switzerland Equity	5.31	7.62	13.13
Sweden Equity	6.56	8.57	12.64

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2018. 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, %)
FIVE-YEAR (EUR)			
Europe Equity	6.72	8.33	10.27
Eurozone Equity	7.37	8.82	10.15
Nordic Equity	9.04	11.16	11.94
Global Equity	7.93	9.63	10.91
Emerging Markets Equity	4.36	5.71	7.16
U.S. Equity	10.76	12.75	14.39
France Equity	9.27	10.34	13.90
Germany Equity	7.18	8.93	10.94
Italy Equity	8.81	10.78	11.80
Spain Equity	6.02	7.73	10.32
Netherlands Equity	12.32	12.84	15.53
FIVE-YEAR (GBP)			
Europe Equity	9.27	10.36	11.88
Europe Ex-UK Equity	9.46	10.69	11.99
UK Equity	7.90	9.62	12.00
UK Large-/Mid-Cap Equity	7.42	8.48	9.72
UK Small-Cap Equity	12.26	14.81	17.36
Global Equity	10.01	11.38	13.05
Emerging Markets Equity	6.20	7.72	9.09
U.S. Equity	12.97	14.97	16.41
FIVE-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)			
Denmark Equity	17.23	18.10	19.19
Poland Equity	-0.26	2.75	5.52
Switzerland Equity	7.05	9.09	13.43
Sweden Equity	12.87	13.95	18.57
TEN-YEAR (EUR)			
Europe Equity	3.52	4.89	6.83
Eurozone Equity	2.94	3.91	5.42
Nordic Equity	5.88	7.48	8.10
Global Equity	4.65	6.17	7.36
Emerging Markets Equity	1.95	3.27	4.34
U.S. Equity	8.75	10.01	11.52
France Equity	4.54	5.63	8.36
Germany Equity	5.61	6.59	8.41
Italy Equity	1.01	2.21	3.18
Spain Equity	0.75	1.92	3.43
Netherlands Equity	4.92	5.35	10.30
TEN-YEAR (GBP)			
Europe Equity	7.40	8.42	9.85
Europe Ex-UK Equity	6.55	7.80	9.33
UK Equity	7.20	8.72	11.53
UK Large-/Mid-Cap Equity	6.70	7.51	8.82
UK Small-Cap Equity	10.93	12.78	14.08
Global Equity	7.98	8.95	10.13
Emerging Markets Equity	4.83	6.26	6.78
U.S. Equity	11.90	13.06	14.07
TEN-YEAR (OTHER EUROPEAN LOCAL CURRENCIES)			
Denmark Equity	10.17	10.80	11.27
Poland Equity	-0.91	0.73	3.32
Switzerland Equity	4.68	6.04	7.55
Sweden Equity	10.20	11.52	14.38

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods June 30, 2018. 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	
EAA Fund Europe Large-Cap Blend Equity	
EAA Fund Europe Large-Cap Growth Equity	S&P Europe 350 (EUR) Gross Total Return
EAA Fund Europe Large-Cap Value Equity	
EAA Fund Europe Mid-Cap Equity	
EAA Fund Europe Small-Cap Equity	
EAA Fund Eurozone Flex-Cap Equity	
EAA Fund Eurozone Large-Cap Equity	S&P Eurozone BMI (EUR) Gross Total Return
EAA Fund Eurozone Mid-Cap Equity	
EAA Fund Eurozone Small-Cap Equity	
EAA Fund France Large-Cap Equity	S&P France BMI (EUR) Gross Total Return
EAA Fund France Small-/Mid-Cap Equity	
EAA Fund Germany Large-Cap Equity	S&P Germany BMI (EUR) Gross Total Return
EAA Fund Germany Small-/Mid-Cap Equity	
EAA Fund Italy Equity	S&P Italy BMI (EUR) Gross Total Return
EAA Fund Netherlands Equity	S&P Netherlands BMI (EUR) Gross Total Return
EAA Fund Nordic Equity	S&P Nordic BMI (EUR) Gross Total Return
EAA Fund Spain Equity	S&P Spain BMI (EUR) Gross Total Return

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	
EAA Fund Europe Large-Cap Blend Equity	
EAA Fund Europe Large-Cap Growth Equity	S&P Europe 350 (GBP) (WM) Gross Total Return
EAA Fund Europe Large-Cap Value Equity	
EAA Fund Europe Mid-Cap Equity	
EAA Fund Europe Small-Cap Equity	
EAA Fund Europe Ex-UK Large-Cap Equity	S&P Europe Ex-UK BMI (GBP) Gross Total Return
EAA Fund Europe Ex-UK Small-/Mid-Cap Equity	
EAA Fund UK Large-Cap Blend Equity	
EAA Fund UK Large-Cap Growth Equity	S&P United Kingdom LargeMidCap (GBP) Gross Total Return
EAA Fund UK Large-Cap Value Equity	
EAA Fund UK Mid-Cap Equity	
EAA Fund UK Small-Cap Equity	S&P United Kingdom SmallCap (GBP) Gross Total Return
EAA Fund UK Large-Cap Blend Equity	
EAA Fund UK Large-Cap Growth Equity	
EAA Fund UK Large-Cap Value Equity	S&P United Kingdom BMI (GBP) Gross Total Return
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	S&P Denmark BMI (Local Currency) Gross Total Return
EAA Fund Poland Equity	S&P Poland BMI (Local Currency) Gross Total Return
EAA Fund Sweden Large-Cap Equity	S&P Sweden BMI (Local Currency) Gross Total Return
EAA Fund Sweden Small/Mid-Cap Equity	
EAA Fund Switzerland Small/Mid-Cap Equity	S&P Switzerland BMI (Local Currency) Gross Total Return
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	S&P Global 1200 Total Return (EUR)
EAA Fund Global Large-Cap Growth Equity	
EAA Fund Global Large-Cap Value Equity	
EAA Fund Global Small-Cap Equity	S&P 500 Total Return (EUR)
EAA Fund U.S. Large-Cap Blend Equity	
EAA Fund U.S. Large-Cap Growth Equity	
EAA Fund U.S. Large-Cap Value Equity	S&P 500 Total Return (EUR)
EAA Fund U.S. Mid-Cap Equity	
EAA Fund U.S. Flex-Cap Equity	
EAA Fund U.S. Small-Cap Equity	S&P/IFCI Total Return (EUR)
EAA Fund Global Emerging Markets Equity	
EAA Fund Global Large-Cap Blend Equity	
EAA Fund Global Large-Cap Growth Equity	S&P Global 1200 Total Return (GBP)
EAA Fund Global Large-Cap Value Equity	
EAA Fund Global Small-Cap Equity	
EAA Fund U.S. Large-Cap Blend Equity	S&P 500 Total Return (GBP)
EAA Fund U.S. Large-Cap Growth Equity	
EAA Fund U.S. Large-Cap Value Equity	
EAA Fund U.S. Mid-Cap Equity	S&P 500 Total Return (GBP)
EAA Fund U.S. Small-Cap Equity	
EAA Fund U.S. Flex-Cap Equity	
EAA Fund Global Emerging Markets Equity	S&P/IFCI (GBP)

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

The [S&P/IFCI](#) 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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