

Europe Persistence Scorecard

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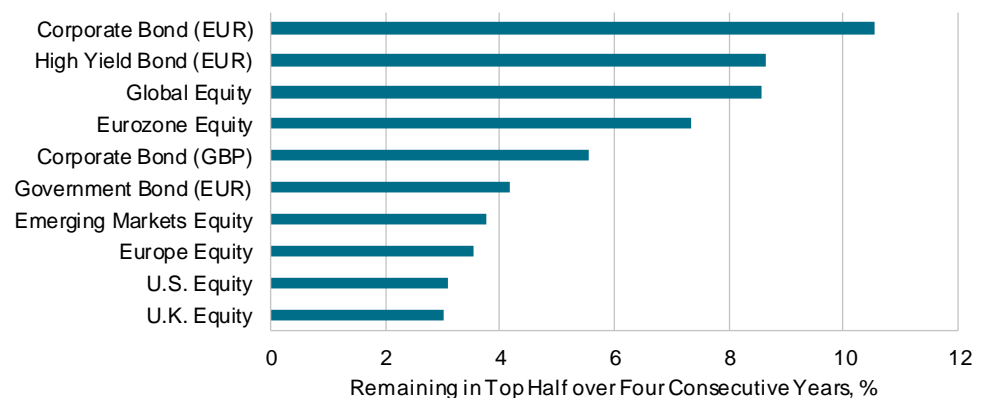
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Summary

Can investment results be attributed to skill or luck? Genuine skill is more likely to persist, while luck is random and fleeting. Thus, one measure of skill is the consistency of a fund's performance relative to its peers. The Persistence Scorecard measures that consistency and shows that, regardless of asset class or style focus, active management outperformance is typically relatively short lived, with few funds consistently outranking their peers.

In five of the six reported equity fund categories and all four reported fixed income categories, **not a single manager** whose performance placed them in the top quartile for the 12-month period ending December 2019 **managed to remain in the top quartile for the next four years** (see Report 2 and Report 8). The results improve by lowering the bar from the top quartile to the top half: the proportion of funds remaining in the top half over four consecutive years is higher than would be expected if the performance were completely random in 4 of the 10 reported categories (see Exhibit 1).

Exhibit 1: Percentage of Funds Remaining in Top Half over Four Consecutive One-Year Periods



Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2023. Chart is provided for illustrative purposes. Past performance is no guarantee of future results.

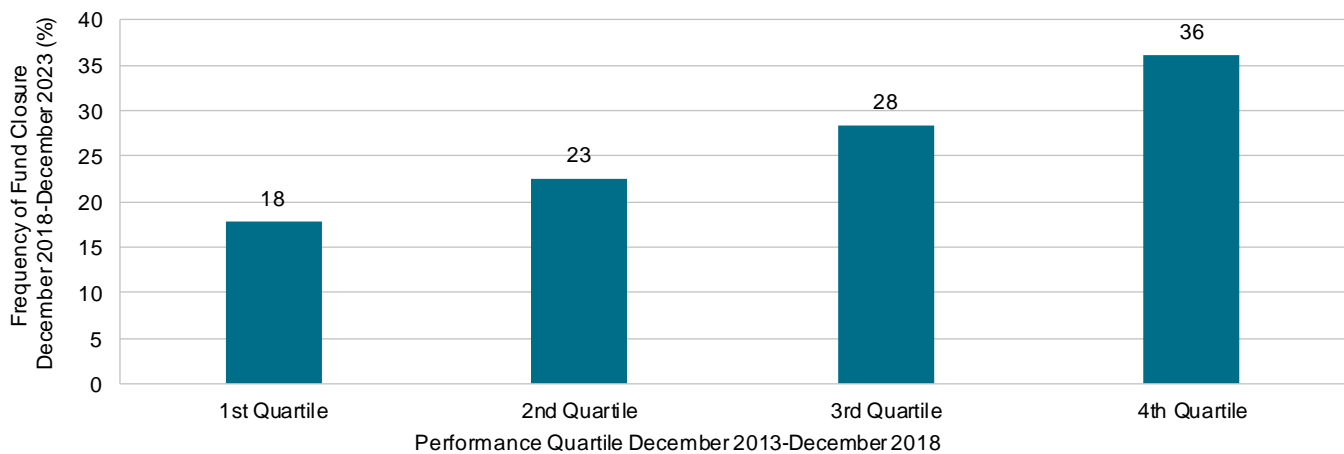
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Report Highlights

2023 was a challenging environment for active equity managers in Europe¹ and, just like in previous years, persistence of outperformance was hard to find. While prior outperformance was not a reliable indicator of future outperformance, persistent underperformance did significantly increase the frequency of subsequent fund closures.

- Over a five-year horizon, it was statistically nearly impossible to find funds that consistently remained in the top performance quartile year after year. **Of the 1,118 actively managed funds** whose performance over the 12-month period ending December 2019 placed them in the top quartile in their respective categories, **just two funds** remained in the top quartile in each of the four subsequent one-year periods ending December 2023.
- Over discrete five-year periods, there were also few funds whose relative outperformance persisted. Just **17% of top-half U.K. Equity funds** remained in the top half for two consecutive five-year periods, while the equivalent percentage for EUR-denominated **High Yield Bond funds** was **15%**.
- Over the long term, poor performance has proven to be a reliable indicator of future fund closures. Across the 10 categories reported by our scorecard, an unweighted average of 36% of actively managed funds whose performance placed them in the bottom quartile in the five-year period ending December 2018 were subsequently merged or liquidated over the next five years, while the comparable figure for funds in the top quartile was just 18% (see Exhibit 2 as well as Reports 5 and 11).

Exhibit 2: Percentage of Funds Merged/Liquidated between December 2018 and December 2023 across Performance Quartiles from December 2013 to December 2018



Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2023. Chart is provided for illustrative purposes. Past performance is no guarantee of future results.

¹ See the [SPIVA Europe Year-End 2023 Scorecard](#).

About the Persistence Scorecard

The phrase “past performance is no guarantee of future results” (or some variation thereof) can be found in the fine print of most mutual fund literature. Yet many investors and advisors consider past performance and related metrics to be important factors in fund selection. So, does past performance really matter?

To answer this question, the annual S&P Persistence Scorecard tracks the degree to which historical relative performance is predictive of future relative performance. For a more detailed description of the Persistence Scorecard’s allocation of funds to appropriate categories, and how funds are screened and selected for inclusion, please see the corresponding [SPIVA Europe Year-End 2023 Scorecard](#).

Key features of the S&P Persistence Scorecard include:

- **Historical rankings without survivorship bias:** For anyone making an investment decision, all funds available at the time of that decision are part of the initial opportunity set. Ignoring funds that liquidate or merge during a period of study biases measurements of persistence. The S&P Persistence Scorecard ranks all funds available at each point in time and tracks the top-quartile and top-half performers throughout the time.
- **Clean universe:** The fund universe used in these reports comprises actively managed domestic European equity funds. Index funds and leveraged funds are excluded from the sample. To avoid double counting multiple share classes, only the share class with the highest previous period return of each fund is used.
- **Tracking reports of top performers:** The tracking reports show the percentage of funds that remain in the top-quartile or top-half rankings over consecutive three- and five-year periods.
- **Transition matrices:** Transition matrices show the movements across quartiles and halves over non-overlapping three- and five-year periods. They also track the percentage of funds that have merged or liquidated.

As in our widely followed SPIVA Europe Scorecards, Morningstar serves as our underlying data source.

Reports

Report 1: Performance Persistence of European Equity Funds over Three Consecutive 12-Month Periods

Fund Category	Fund Count at Start (December 2021)	Percentage Remaining in Top Quartile	
		December 2022	December 2023
Top Quartile			
Euro-Denominated Funds (EUR)			
Europe Equity	250	18.00	4.80
Eurozone Equity	132	22.73	13.64
Global Equity	323	29.10	4.64
Emerging Markets Equity	83	57.83	36.14
U.S. Equity	88	34.09	1.14
Pound Sterling-Denominated Funds (GBP)			
U.K. Equity	80	18.75	5.00
Fund Category	Fund Count at Start (December 2021)	Percentage Remaining in Top Half	
		December 2022	December 2023
Top Half			
Euro-Denominated Funds (EUR)			
Europe Equity	500	45.80	30.40
Eurozone Equity	263	52.09	38.02
Global Equity	645	55.81	28.37
Emerging Markets Equity	165	65.45	47.27
U.S. Equity	176	58.52	20.45
Pound Sterling-Denominated Funds (GBP)			
U.K. Equity	160	41.88	30.00

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 1b: Alpha Persistence of Domestic Equity Funds over Three Consecutive 12-Month Periods

Fund Category	Benchmark	Total Fund Count	Funds Outperforming the Benchmark (December 2021)		Percentage Continuing to Outperform the Benchmark (%)	
			Count	Percentage (%)	December 2022	December 2023
Euro-Denominated Funds (EUR)						
Europe Equity	S&P Europe 350	1058	293	27.69	12.29	2.73
Eurozone Equity	S&P Eurozone BMI	562	208	37.01	37.98	15.87
Global Equity	S&P Global 1200	1338	267	19.96	29.59	2.62
Emerging Markets Equity	S&P/IFCI Composite	345	95	27.54	50.53	35.79
U.S. Equity	S&P 500	368	59	16.03	47.46	0.00
Pound Sterling-Denominated Funds (GBP)						
U.K. Equity	S&P United Kingdom BMI	336	158	47.02	8.86	5.70

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 2: Performance Persistence of European Equity Funds over Five Consecutive 12-Month Periods

Fund Category	Fund Count at Start (December 2019)	Percentage Remaining in Top Quartile			
		December 2020	December 2021	December 2022	December 2023
Top Quartile					
Euro-Denominated Funds (EUR)					
Europe Equity	254	51.18	21.26	0.00	0.00
Eurozone Equity	137	43.07	16.06	0.00	0.00
Global Equity	286	48.25	11.89	1.05	0.70
Emerging Markets Equity	80	60.00	5.00	0.00	0.00
U.S. Equity	81	48.15	7.41	0.00	0.00
Pound Sterling-Denominated Funds (GBP)					
U.K. Equity	83	46.99	25.30	0.00	0.00
Fund Category	Fund Count at Start (December 2019)	Percentage Remaining in Top Half			
		December 2020	December 2021	December 2022	December 2023
Top Half					
Euro-Denominated Funds (EUR)					
Europe Equity	508	62.60	32.09	6.50	3.54
Eurozone Equity	273	60.44	31.50	9.89	7.33
Global Equity	572	63.29	33.57	12.41	8.57
Emerging Markets Equity	159	62.89	18.24	4.40	3.77
U.S. Equity	161	67.70	28.57	7.45	3.11
Pound Sterling-Denominated Funds (GBP)					
U.K. Equity	166	64.46	34.94	4.82	3.01

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3: Three-Year Transition Matrix – Performance of European Equity Funds over Two Non-Overlapping Three-Year Periods (Based on Quartiles)

Quartile	Fund Count at Start (December 2017-December 2020)	Three-Year Percentages at End (December 2020-December 2023)				
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged/Liquidated (%)
Euro-Denominated Funds (EUR)						
Europe Equity						
1st Quartile	221	6.79	14.03	25.34	38.91	14.93
2nd Quartile	220	18.18	23.64	20.91	16.36	20.91
3rd Quartile	220	25.45	19.09	17.73	14.09	23.64
4th Quartile	221	28.51	21.72	14.93	9.50	25.34
Eurozone Equity						
1st Quartile	123	8.94	21.95	18.70	37.40	13.01
2nd Quartile	123	21.14	18.70	29.27	13.82	17.07
3rd Quartile	123	24.39	25.20	19.51	13.01	17.89
4th Quartile	124	28.23	16.94	15.32	18.55	20.97
Global Equity						
1st Quartile	242	18.18	23.97	19.83	33.88	4.13
2nd Quartile	242	22.31	21.90	24.38	16.94	14.46
3rd Quartile	242	21.49	23.14	23.55	19.01	12.81
4th Quartile	243	25.93	18.93	20.16	18.52	16.46
Emerging Markets Equity						
1st Quartile	69	5.80	13.04	30.43	36.23	14.49
2nd Quartile	68	14.71	38.24	10.29	19.12	17.65
3rd Quartile	68	22.06	19.12	30.88	16.18	11.76
4th Quartile	69	40.58	13.04	11.59	11.59	23.19
U.S. Equity						
1st Quartile	69	10.14	14.49	28.99	36.23	10.14
2nd Quartile	68	20.59	26.47	27.94	14.71	10.29
3rd Quartile	68	22.06	29.41	14.71	25.00	8.82
4th Quartile	69	34.78	15.94	15.94	11.59	21.74
Pound Sterling-Denominated Funds (GBP)						
U.K. Equity						
1st Quartile	75	0.00	10.67	20.00	56.00	13.33
2nd Quartile	74	12.16	14.86	36.49	17.57	18.92
3rd Quartile	75	26.67	33.33	18.67	5.33	16.00
4th Quartile	75	40.00	20.00	4.00	0.00	36.00

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 4: Three-Year Transition Matrix – Performance of European Equity Funds over Two Non-Overlapping Three-Year Periods (Based on Halves)

Half	Fund Count at Start (December 2017- December 2020)	Three-Year Percentages at End (December 2020-December 2023)		
		Top Half (%)	Bottom Half (%)	Merged/Liquidated (%)
Euro-Denominated Funds (EUR)				
Europe Equity				
Top Half	441	17.91	31.29	50.79
Bottom Half	441	24.49	47.39	28.12
Eurozone Equity				
Top Half	246	15.04	35.37	49.59
Bottom Half	247	19.43	47.37	33.20
Global Equity				
Top Half	484	9.30	43.18	47.52
Bottom Half	485	14.64	44.74	40.62
Emerging Markets Equity				
Top Half	137	16.06	35.77	48.18
Bottom Half	137	17.52	47.45	35.04
U.S. Equity				
Top Half	137	10.22	35.77	54.01
Bottom Half	137	15.33	51.09	33.58
Pound Sterling-Denominated Funds (GBP)				
U.K. Equity				
Top Half	149	16.11	18.79	65.10
Bottom Half	150	26.00	60.00	14.00

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 5: Five-Year Transition Matrix – Performance of European Equity Funds over Two Non-Overlapping Five-Year Periods (Based on Quartiles)

Quartile	Fund Count at Start (December 2013- December 2018)	Five-Year Percentages at End (December 2018-December 2023)				
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged/ Liquidated (%)
Euro-Denominated Funds (EUR)						
Europe Equity						
1st Quartile	189	24.87	14.81	21.16	15.34	23.81
2nd Quartile	189	21.16	23.81	19.05	12.70	23.28
3rd Quartile	189	17.99	20.11	16.40	17.99	27.51
4th Quartile	190	7.89	12.63	14.74	25.79	38.95
Eurozone Equity						
1st Quartile	113	23.01	14.16	23.89	23.89	15.04
2nd Quartile	112	30.36	22.32	13.39	11.61	22.32
3rd Quartile	112	15.18	27.68	18.75	12.50	25.89
4th Quartile	113	7.96	11.50	19.47	28.32	32.74
Global Equity						
1st Quartile	185	42.16	21.62	12.43	7.57	16.22
2nd Quartile	184	21.74	23.91	20.65	13.04	20.65
3rd Quartile	185	11.89	22.70	29.73	18.92	16.76
4th Quartile	185	4.86	12.43	17.84	41.08	23.78
Emerging Markets Equity						
1st Quartile	57	28.07	26.32	8.77	8.77	28.07
2nd Quartile	56	17.86	26.79	23.21	10.71	21.43
3rd Quartile	56	16.07	16.07	19.64	21.43	26.79
4th Quartile	57	10.53	3.51	21.05	31.58	33.33
U.S. Equity						
1st Quartile	58	43.10	27.59	10.34	10.34	8.62
2nd Quartile	58	13.79	25.86	17.24	12.07	31.03
3rd Quartile	58	17.24	13.79	31.03	18.97	18.97
4th Quartile	58	3.45	10.34	18.97	37.93	29.31
Pound Sterling-Denominated Funds (GBP)						
U.K. Equity						
1st Quartile	72	22.22	13.89	18.06	27.78	18.06
2nd Quartile	71	23.94	23.94	21.13	15.49	15.49
3rd Quartile	71	12.68	22.54	14.08	14.08	36.62
4th Quartile	72	11.11	9.72	16.67	12.50	50.00

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 6: Five-Year Transition Matrix – Performance of European Equity Funds over Two Non-Overlapping Five-Year Periods (Based on Halves)

Half	Fund Count at Start (December 2013- December 2018)	Five-Year Percentages at End (December 2018-December 2023)		
		Top Half (%)	Bottom Half (%)	Merged/Liquidated (%)
Euro-Denominated Funds (EUR)				
Europe Equity				
Top Half	378	23.54	42.33	34.13
Bottom Half	379	33.25	29.29	37.47
Eurozone Equity				
Top Half	225	18.67	44.89	36.44
Bottom Half	225	29.33	31.11	39.56
Global Equity				
Top Half	369	18.43	54.74	26.83
Bottom Half	370	20.27	25.95	53.78
Emerging Markets Equity				
Top Half	113	24.78	49.56	25.66
Bottom Half	113	30.09	23.01	46.90
U.S. Equity				
Top Half	116	19.83	55.17	25.00
Bottom Half	116	24.14	22.41	53.45
Pound Sterling-Denominated Funds (GBP)				
U.K. Equity				
Top Half	143	16.78	41.96	41.26
Bottom Half	143	43.36	27.97	28.67

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 7: Performance Persistence of European Fixed Income Funds over Three Consecutive 12-Month Periods

Fund Category	Fund Count at Start (December 2021)	Percentage Remaining in Top Quartile	
		December 2022	December 2023
Top Quartile			
Corporate Bond (EUR)	84	59.52	8.33
Government Bond (EUR)	44	65.91	6.82
High Yield Bond (EUR)	44	31.82	4.55
Corporate Bond (GBP)	27	55.56	18.52
Fund Category	Fund Count at Start (December 2021)	Percentage Remaining in Top Half	
		December 2022	December 2023
Top Half			
Corporate Bond (EUR)	167	56.29	23.35
Government Bond (EUR)	88	72.73	17.05
High Yield Bond (EUR)	87	50.57	25.29
Corporate Bond (GBP)	54	62.96	40.74

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 7b: Alpha Persistence of Fixed Income Funds over Three Consecutive 12-Month Periods

Fund Category	Benchmark	Total Fund Count	Funds Outperforming the Benchmark (December 2021)		Percentage Continuing to Outperform the Benchmark (%)	
			Count	Percentage (%)	December 2022	December 2023
Corporate Bond (EUR)	iBoxx Euro Corporates Overall	345	214	62.03	65.42	32.71
Government Bond (EUR)	iBoxx Euro Sovereign	197	106	53.81	84.91	16.98
High Yield Bond (EUR)	iBoxx EUR Liquid High Yield Index	186	74	39.78	37.84	13.51
Corporate Bond (GBP)	iBoxx Sterling Non-Gilts Overall	111	79	71.17	56.96	45.57

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 8: Performance Persistence of Domestic Fixed Income Funds over Five Consecutive 12-Month Periods

Fund Category	Fund Count at Start (December 2019)	Percentage Remaining in Top Quartile			
		December 2020	December 2021	December 2022	December 2023
Top Quartile					
Corporate Bond (EUR)	81	48.15	9.88	1.23	0.00
Government Bond (EUR)	48	58.33	2.08	0.00	0.00
High Yield Bond (EUR)	41	41.46	19.51	2.44	0.00
Corporate Bond (GBP)	27	70.37	7.41	0.00	0.00
Fund Category	Fund Count at Start (December 2019)	Percentage Remaining in Top Half			
		December 2020	December 2021	December 2022	December 2023
Top Half					
Corporate Bond (EUR)	161	68.32	32.92	12.42	10.56
Government Bond (EUR)	96	80.21	20.83	9.38	4.17
High Yield Bond (EUR)	81	67.90	37.04	13.58	8.64
Corporate Bond (GBP)	54	74.07	24.07	5.56	5.56

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 9: Three-Year Transition Matrix – Performance of European Fixed Income Funds over Two Non-Overlapping Three-Year Periods (Based on Quartiles)

Quartile	Fund Count at Start (December 2017- December 2020)	Five-Year Percentages at End (December 2020-December 2023)				
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged/ Liquidated (%)
Corporate Bond (EUR)						
1st Quartile	70	11.43	38.57	17.14	15.71	17.14
2nd Quartile	70	8.57	24.29	28.57	27.14	11.43
3rd Quartile	70	18.57	10.00	28.57	22.86	20.00
4th Quartile	71	42.25	8.45	7.04	16.90	25.35
Government Bond (EUR)						
1st Quartile	44	4.55	22.73	45.45	15.91	11.36
2nd Quartile	44	2.27	11.36	15.91	38.64	31.82
3rd Quartile	44	18.18	29.55	11.36	13.64	27.27
4th Quartile	44	50.00	9.09	0.00	6.82	34.09
High Yield Bond (EUR)						
1st Quartile	37	13.51	32.43	32.43	10.81	10.81
2nd Quartile	36	19.44	27.78	13.89	13.89	25.00
3rd Quartile	37	24.32	16.22	13.51	18.92	27.03
4th Quartile	37	21.62	2.70	18.92	35.14	21.62
Corporate Bond (GBP)						
1st Quartile	26	3.85	11.54	11.54	50.00	23.08
2nd Quartile	25	16.00	28.00	28.00	16.00	12.00
3rd Quartile	25	4.00	44.00	40.00	8.00	4.00
4th Quartile	26	61.54	3.85	7.69	11.54	15.38

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 10: Three-Year Transition Matrix – Performance of European Fixed Income Funds over Two Non-Overlapping Three-Year Periods (Based on Halves)

Half	Fund Count at Start (December 2017- December 2020)	Three-Year Percentages at End (December 2020-December 2023)		
		Top Half (%)	Bottom Half (%)	Merged/ Liquidated (%)
Corporate Bond (EUR)				
Top Half	140	14.29	41.43	44.29
Bottom Half	141	22.70	39.72	37.59
Government Bond (EUR)				
Top Half	88	21.59	20.45	57.95
Bottom Half	88	30.68	53.41	15.91
High Yield Bond (EUR)				
Top Half	73	17.81	46.58	35.62
Bottom Half	74	24.32	32.43	43.24
Corporate Bond (GBP)				
Top Half	51	17.65	29.41	52.94
Bottom Half	51	9.80	56.86	33.33

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 11: Five-Year Transition Matrix - Performance of European Fixed Income Funds over Two Non-Overlapping Five-Year Periods (Based on Quartile)

Quartile	Fund Count at Start (December 2013- December 2018)	Five-Year Percentages at End (December 2018-December 2023)				
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged/ Liquidated (%)
Corporate Bond (EUR)						
1st Quartile	65	44.62	18.46	7.69	6.15	23.08
2nd Quartile	64	6.25	28.13	32.81	12.50	20.31
3rd Quartile	64	9.38	10.94	28.13	29.69	21.88
4th Quartile	65	13.85	15.38	6.15	26.15	38.46
Government Bond (EUR)						
1st Quartile	45	28.89	24.44	15.56	8.89	22.22
2nd Quartile	44	6.82	9.09	34.09	20.45	29.55
3rd Quartile	45	11.11	13.33	8.89	17.78	48.89
4th Quartile	45	15.56	15.56	4.44	17.78	46.67
High Yield Bond (EUR)						
1st Quartile	30	40.00	36.67	6.67	6.67	10.00
2nd Quartile	30	26.67	20.00	23.33	10.00	20.00
3rd Quartile	30	6.67	16.67	26.67	20.00	30.00
4th Quartile	30	3.33	3.33	20.00	43.33	30.00
Corporate Bond (GBP)						
1st Quartile	23	21.74	17.39	13.04	34.78	13.04
2nd Quartile	23	13.04	30.43	26.09	8.70	21.74
3rd Quartile	23	13.04	21.74	26.09	8.70	30.43
4th Quartile	24	25.00	4.17	8.33	25.00	37.50

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 12: Five-Year Transition Matrix – Performance of European Fixed Income Funds over Two Non-Overlapping Five-Year Periods (Based on Halves)

Half	Fund Count at Start (December 2013- December 2018)	Five-Year Percentages at End (December 2018-December 2023)		
		Top Half (%)	Bottom Half (%)	Merged/Liquidated (%)
Corporate Bond (EUR)				
Top Half	129	21.71	48.84	29.46
Bottom Half	129	30.23	24.81	44.96
Government Bond (EUR)				
Top Half	89	25.84	34.83	39.33
Bottom Half	90	47.78	27.78	24.44
High Yield Bond (EUR)				
Top Half	60	15.00	61.67	23.33
Bottom Half	60	30.00	15.00	55.00
Corporate Bond (GBP)				
Top Half	46	17.39	41.30	41.30
Bottom Half	47	34.04	31.91	34.04

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Appendix

SPIVA Styles and Morningstar Fund Classifications

Data from Morningstar Europe is obtained for all actively managed funds² 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.

European Equity Funds Denominated in EUR and GBP

The Europe Persistence Scorecard covers regional and country-specific funds that are denominated in EUR and GBP, and they have been mapped to the relevant Morningstar fund categories as indicated in Exhibit 3. 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 3: 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	

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

² Includes UCITs and non-UCITs open-end funds and ETFs.

Exhibit 3: Morningstar Categories and SPIVA Peer Groups for European Equity Funds (cont.)

European Funds Denominated in Euros (EUR)	
Morningstar Category	SPIVA Category
EAA Fund Global Large-Cap Blend Equity	Global Equity
EAA Fund Global Large-Cap Growth Equity	
EAA Fund Global Large-Cap Value Equity	
EAA Fund Global Small/Mid-Cap Equity	U.S. 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	
EAA Fund U.S. Mid-Cap Equity	
EAA Fund U.S. Flex-Cap Equity	
EAA Fund U.S. Small-Cap Equity	Emerging Markets Equity
EAA Fund Global Emerging Markets Equity	
European Funds Denominated In British Pound Sterling (GBP)	
Morningstar Category	SPIVA Category
EAA Fund UK Large-Cap Blend Equity	U.K. 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	

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

Fixed Income Funds

The Europe Persistence Scorecard reports on Corporate Bond, High Yield Bond and Government Bond categories in EUR, and on the Corporate Bond category in GBP. They have been mapped to the relevant Morningstar fund categories as shown in Exhibit 4.

Exhibit 4: Morningstar Categories and SPIVA Peer Groups European Fixed Income Funds

Morningstar Category	SPIVA Category
EAA Fund EUR Corporate Bond	Corporate Bond (EUR)
EAA Fund EUR Government Bond	Government Bond (EUR)
EAA Fund EUR High Yield Bond	High Yield Bond (EUR)
EAA Fund GBP Corporate Bond	Corporate Bond (GBP)

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

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