

U.S. Persistence Scorecard

Contributors

Craig J. Lazzara, CFA
Managing Director
Index Investment Strategy
craig.lazzara@spglobal.com

Davide Di Gioia
Chief SPIVA Engineer
Index Investment Strategy
davide.di.gioia@spglobal.com

Grace Stoddart
Quantitative Associate
Index Investment Strategy
grace.stoddart@spglobal.com

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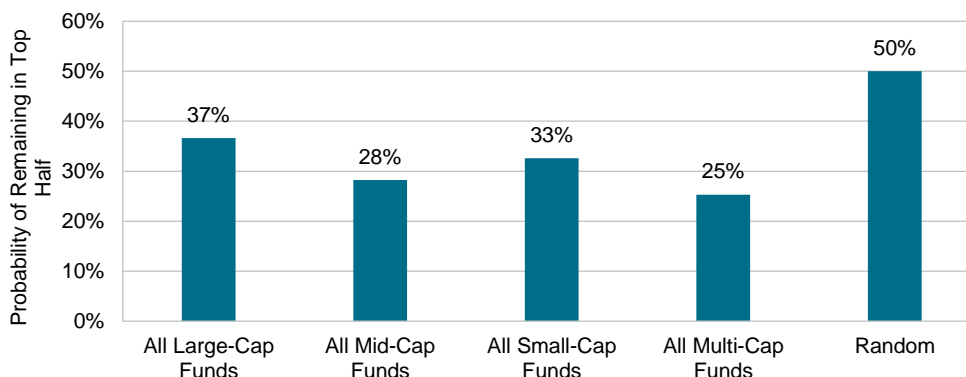
“I don’t know any investors who shouldn’t act as if markets are efficient.”
- Eugene Fama¹

Summary

Strong theoretical arguments and extensive empirical data² support the expectation that most active managers should underperform most of the time. But *most active managers are not all active managers*, and *most of the time is not all of the time*. When we observe active management success, how can we tell whether it is the product of genuine skill or merely the result of good luck? One answer is that **results produced by genuine skill are likely to persist, while those due to luck are likely to prove ephemeral.**³

The Persistence Scorecard is designed to address this question. Our report for year-end 2022 finds little evidence of persistent active management success, despite considering a variety of metrics and lookback periods. Exhibit 1 illustrates the general point, using 10 years of return data for U.S. equity managers.

Exhibit 1: Top-Half Funds in Years 1-5 Did Not Repeat in Years 6-10



Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Chart is provided for illustrative purposes. Past performance is no guarantee of future results.

¹ Chicago Booth Review, “Are Markets Efficient?,” June 30, 2016.

² See, e.g., <https://www.spglobal.com/spdji/en/research-insights/spiva/>.

³ Lazzara, Craig, “Shooting Hoops with Michael Jordan: An Allegory,” S&P Dow Jones Indices, Sept. 29, 2022.

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Following Report 6, we consider the above-median managers in each fund category for the first five years, and then ask what fraction of the initial set of top managers repeated their above-median performance in the second five years. If performance were completely random, we would expect 50% of the winners in the first five years also to win in the second five years; if substantially more than 50% of the winners repeated in the second interval, that might be evidence of consistent skill. **Results, however, fell well short of this mark.**

Report Highlights

Results of the U.S. Persistence Year-End 2022 Scorecard are broadly consonant with those of prior years, despite 2022's relatively benign environment for active U.S. managers. A declining market, the underperformance of mega-cap stocks, record sectoral spreads and above-average dispersion all militated in favor of active management, and yet 51% of large-cap U.S. equity funds lagged the [S&P 500®](#).⁴ That most active managers underperformed in what might have been a favorable milieu helps explain why consistent value added, while much desired, is seldom observed.

- Only 5% of the above-median large-cap active equity funds in calendar year 2020 remained above median in each of the two succeeding years. (If outperformance were purely random, we would expect a 25% repeat rate.) We see similar results for other fund categories (see Report 1).
- Of 2020's top quartile large-cap funds, **none** continued in the top quartile for the next two years (versus 6.25% random expectation). These results were echoed in other fund categories (see Report 1).
- Consistent value added was just as elusive as consistently good peer group rankings. **Outperformance by active managers in 2020 did not predict outperformance in the two subsequent years** (see Report 1b).
- Results for active fixed income managers were somewhat better than for their equity counterparts, although still typically below the level suggested by chance (see Report 7).
- We continue to find evidence of persistence at the unfavorable end of the distribution. For example, 28% of all fourth quartile U.S. equity funds (based on 2012-2017 performance) were merged or liquidated within the next five years. The comparable figure for top quartile funds was only 10%. Results for active fixed income funds were similar (see Reports 5 and 11).

⁴ Edwards, Tim *et al.*, "[SPIVA U.S. Scorecard](#)," S&P Dow Jones Indices, Year-End 2022. Admittedly, this was the best active performance rate for large-cap funds in 13 years, and an especially notable rebound from 2021's 85% underperformance rate.

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 semiannual S&P Persistence Scorecard tracks the degree to which historical relative performance is predictive of future relative performance. As in our widely followed SPIVA[®] Scorecards, the University of Chicago’s Center for Research in Security Prices (CRSP) Survivorship Bias Free Mutual Fund Database serves as the underlying data source. 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 U.S. Year-End 2022 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 performance and persistence. Using the CRSP database, the S&P Persistence Scorecard ranks all funds available at each point in time and tracks the top-quartile and top-half performers over time.
- **Clean universe:** The mutual fund universe used in these reports comprises actively managed domestic U.S. equity funds. Index funds, sector funds, and index-based dynamic (bull or bear) funds are excluded from the sample. To avoid double counting of multiple share classes, only the share class with the highest previous period return of each fund is used.
- **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, liquidated, or changed style.
- **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.

Reports

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

Fund Category	Fund Count at Start (December 2020)	Percentage Remaining in Top Quartile	
		December 2021	December 2022
Top Quartile			
All Domestic Funds	488	4.10	0.00
All Large-Cap Funds	156	7.05	0.00
All Mid-Cap Funds	63	0.00	0.00
All Small-Cap Funds	123	2.44	0.81
All Multi-Cap Funds	121	9.09	0.00
Fund Category	Fund Count at Start (December 2020)	Percentage Remaining in Top Half	
		December 2021	December 2022
Top Half			
All Domestic Funds	975	32.10	7.18
All Large-Cap Funds	318	39.31	5.03
All Mid-Cap Funds	128	13.28	2.34
All Small-Cap Funds	243	21.81	9.05
All Multi-Cap Funds	241	39.83	9.96

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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 2020)		Percentage Continuing to Outperform the Benchmark (%)	
			Count	Percentage (%)	December 2021	December 2022
All Domestic Funds	S&P Composite 1500	2061	891	43.23	10.66	2.47
All Large-Cap Funds	S&P 500	724	288	39.78	12.50	2.08
All Mid-Cap Funds	S&P MidCap 400	295	145	49.15	8.97	0.00
All Small-Cap Funds	S&P SmallCap 600	520	284	54.62	11.27	4.93
All Multi-Cap Funds	S&P Composite 1500	532	238	44.74	10.92	1.68

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Fund Category	Fund Count at Start (December 2018)	Percentage Remaining in Top Quartile			
		December 2019	December 2020	December 2021	December 2022
Top Quartile					
All Domestic Funds	527	48.58	33.21	1.71	0.00
All Large-Cap Funds	178	48.88	42.13	3.93	0.00
All Mid-Cap Funds	67	52.24	31.34	1.49	0.00
All Small-Cap Funds	132	51.52	40.91	0.00	0.00
All Multi-Cap Funds	118	46.61	27.97	1.69	0.00
Fund Category	Fund Count at Start (December 2018)	Percentage Remaining in Top Half			
		December 2019	December 2020	December 2021	December 2022
Top Half					
All Domestic Funds	1053	64.20	54.89	16.81	2.66
All Large-Cap Funds	366	63.39	55.19	16.94	1.37
All Mid-Cap Funds	136	70.59	60.29	5.15	0.74
All Small-Cap Funds	263	63.50	52.85	6.08	2.66
All Multi-Cap Funds	229	59.39	51.97	20.09	5.24

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Quartile	Fund Count at Start (December 2016- December 2019)	Three-Year Percentages at End (December 2019-December 2022)					
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged/ Liquidated (%)	Style Changed (%)
All Domestic Funds							
1st Quartile	487	8.21	12.32	24.02	31.42	4.52	19.51
2nd Quartile	486	19.96	19.14	16.05	13.17	9.88	21.81
3rd Quartile	486	18.52	17.08	12.96	11.32	13.37	26.75
4th Quartile	487	13.76	14.37	18.28	12.53	18.69	22.38
All Large-Cap Funds							
1st Quartile	173	6.94	8.09	21.97	49.71	4.05	9.25
2nd Quartile	172	20.93	25.00	19.77	9.30	5.23	19.77
3rd Quartile	172	22.67	19.77	16.86	5.23	9.30	26.16
4th Quartile	173	12.14	15.61	14.45	12.72	12.72	32.37
All Mid-Cap Funds							
1st Quartile	70	4.29	14.29	28.57	25.71	4.29	22.86
2nd Quartile	70	8.57	11.43	14.29	21.43	18.57	25.71
3rd Quartile	70	18.57	15.71	11.43	10.00	8.57	35.71
4th Quartile	70	18.57	11.43	17.14	4.29	22.86	25.71
All Small-Cap Funds							
1st Quartile	122	8.20	6.56	27.87	43.44	7.38	6.56
2nd Quartile	121	17.36	19.01	19.83	18.18	10.74	14.88
3rd Quartile	121	15.70	29.75	19.83	8.26	14.05	12.40
4th Quartile	122	23.77	16.39	10.66	6.56	22.13	20.49
All Multi-Cap Funds							
1st Quartile	125	6.40	12.00	13.60	23.20	5.60	39.20
2nd Quartile	125	16.80	20.80	16.80	9.60	9.60	26.40
3rd Quartile	125	18.40	12.00	15.20	12.80	18.40	23.20
4th Quartile	125	16.80	10.40	12.00	10.40	22.40	28.00

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Half	Fund Count at Start (December 2016- December 2019)	Three-Year Percentages at End (December 2019-December 2022)			
		Top Half (%)	Bottom Half (%)	Merged/Liquidated (%)	Style Changed (%)
All Domestic Funds					
Top Half	973	29.80	42.34	7.19	20.66
Bottom Half	973	31.86	27.54	16.03	24.56
All Large-Cap Funds					
Top Half	345	30.43	50.43	4.64	14.49
Bottom Half	345	35.07	24.64	11.01	29.28
All Mid-Cap Funds					
Top Half	140	19.29	45.00	11.43	24.29
Bottom Half	140	32.14	21.43	15.71	30.71
All Small-Cap Funds					
Top Half	243	25.51	54.73	9.05	10.70
Bottom Half	243	42.80	22.63	18.11	16.46
All Multi-Cap Funds					
Top Half	250	28.00	31.60	7.60	32.80
Bottom Half	250	28.80	25.20	20.40	25.60

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Quartile	Fund Count at Start (December 2012- December 2017)	Five-Year Percentages at End (December 2017-December 2022)					
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged/ Liquidated (%)	Style Changed (%)
All Domestic Funds							
1st Quartile	473	20.08	18.18	11.21	11.63	10.36	28.54
2nd Quartile	473	13.74	13.53	10.99	13.53	14.38	33.83
3rd Quartile	473	10.57	14.38	13.53	13.11	17.12	31.29
4th Quartile	473	6.98	8.25	12.90	12.90	28.12	30.87
All Large-Cap Funds							
1st Quartile	178	25.84	16.85	14.61	12.92	9.55	20.22
2nd Quartile	177	14.12	16.38	15.82	6.21	15.25	32.20
3rd Quartile	178	14.61	13.48	14.04	11.80	10.67	35.39
4th Quartile	178	10.11	8.99	13.48	18.54	24.16	24.72
All Mid-Cap Funds							
1st Quartile	66	16.67	15.15	9.09	15.15	7.58	36.36
2nd Quartile	65	12.31	12.31	10.77	12.31	23.08	29.23
3rd Quartile	65	12.31	13.85	18.46	4.62	16.92	33.85
4th Quartile	66	9.09	12.12	9.09	6.06	31.82	31.82
All Small-Cap Funds							
1st Quartile	115	19.13	16.52	17.39	16.52	7.83	22.61
2nd Quartile	115	15.65	13.91	28.70	18.26	11.30	12.17
3rd Quartile	115	8.70	13.04	13.04	16.52	20.87	27.83
4th Quartile	115	13.04	9.57	9.57	7.83	34.78	25.22
All Multi-Cap Funds							
1st Quartile	117	14.53	13.68	8.55	8.55	11.11	43.59
2nd Quartile	116	8.62	13.79	7.76	4.31	21.55	43.97
3rd Quartile	117	5.98	11.97	13.68	8.55	17.09	42.74
4th Quartile	117	3.42	4.27	6.84	14.53	26.50	44.44

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Half	Fund Count at Start (December 2012- December 2017)	Five-Year Percentages at End (December 2017-December 2022)			
		Top Half (%)	Bottom Half (%)	Merged/Liquidated (%)	Style Changed (%)
All Domestic Funds					
Top Half	946	32.77	23.68	12.37	31.18
Bottom Half	946	20.08	26.22	22.62	31.08
All Large-Cap Funds					
Top Half	355	36.62	24.79	12.39	26.20
Bottom Half	356	23.60	28.93	17.42	30.06
All Mid-Cap Funds					
Top Half	131	28.24	23.66	15.27	32.82
Bottom Half	131	23.66	19.08	24.43	32.82
All Small-Cap Funds					
Top Half	230	32.61	40.43	9.57	17.39
Bottom Half	230	22.17	23.48	27.83	26.52
All Multi-Cap Funds					
Top Half	233	25.32	14.59	16.31	43.78
Bottom Half	234	12.82	21.79	21.79	43.59

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Fund Category	Fund Count at Start (December 2020)	Percentage Remaining in Top Quartile	
		December 2021	December 2022
Top Quartile			
Investment-Grade Intermediate Funds	34	23.53	2.94
Investment-Grade Short & Intermediate Funds	34	11.76	0.00
High Yield Funds	38	31.58	2.63
Global Income Funds	23	8.70	8.70
Fund Category	Fund Count at Start (December 2020)	Percentage Remaining in Top Half	
		December 2021	December 2022
Top Half			
Investment-Grade Intermediate Funds	68	55.88	17.65
Investment-Grade Short & Intermediate Funds	67	37.31	16.42
High Yield Funds	74	51.35	25.68
Global Income Funds	45	24.44	13.33

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Fund Category	Benchmark	Total Fund Count	Funds Outperforming the Benchmark (December 2020)		Percentage Continuing to Outperform the Benchmark (%)	
			Count	Percentage (%)	December 2021	December 2022
Investment-Grade Intermediate Funds	Bloomberg U.S. Aggregate	141	94	66.67	69.15	9.57
Investment-Grade Short & Intermediate Funds	iBoxx \$ Overall 1-5Y	142	36	25.35	55.56	16.67
High Yield Funds	iBoxx \$ Liquid High Yield	156	107	68.59	61.68	27.10
Global Income Funds	Bloomberg Global Aggregate	98	30	30.61	26.67	20.00

Source: S&P Dow Jones Indices LLC, CRSP, Bloomberg LLC. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Fund Category	Fund Count at Start (December 2018)	Percentage Remaining in Top Quartile			
		December 2019	December 2020	December 2021	December 2022
Top Quartile					
Investment-Grade Intermediate Funds	36	11.11	2.78	0.00	0.00
Investment-Grade Short & Intermediate Funds	35	5.71	2.86	2.86	0.00
High Yield Funds	49	12.24	10.20	4.08	0.00
Global Income Funds	26	7.69	0.00	0.00	0.00
Fund Category	Fund Count at Start (December 2018)	Percentage Remaining in Top Half			
		December 2019	December 2020	December 2021	December 2022
Top Half					
Investment-Grade Intermediate Funds	71	29.58	21.13	14.08	4.23
Investment-Grade Short & Intermediate Funds	71	28.17	14.08	7.04	2.82
High Yield Funds	98	30.61	22.45	15.31	8.16
Global Income Funds	51	45.10	25.49	15.69	9.80

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Quartile	Fund Count at Start (December 2016- December 2019)	Three-Year Percentages at End (December 2019-December 2022)					
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged/ Liquidated (%)	Style Changed (%)
Investment-Grade Intermediate Funds							
1st Quartile	34	26.47	20.59	20.59	23.53	5.88	2.94
2nd Quartile	33	15.15	27.27	30.30	18.18	9.09	0.00
3rd Quartile	33	12.12	21.21	24.24	30.30	9.09	3.03
4th Quartile	34	32.35	14.71	14.71	14.71	20.59	2.94
Investment-Grade Short & Intermediate Funds							
1st Quartile	33	27.27	18.18	18.18	33.33	3.03	0.00
2nd Quartile	33	21.21	24.24	21.21	27.27	6.06	0.00
3rd Quartile	33	24.24	24.24	18.18	12.12	18.18	3.03
4th Quartile	34	11.76	20.59	32.35	17.65	14.71	2.94
High Yield Funds							
1st Quartile	36	38.89	25.00	13.89	22.22	0.00	0.00
2nd Quartile	36	11.11	16.67	38.89	33.33	0.00	0.00
3rd Quartile	36	13.89	30.56	25.00	25.00	5.56	0.00
4th Quartile	37	29.73	21.62	16.22	16.22	16.22	0.00
Global Income Funds							
1st Quartile	22	18.18	18.18	31.82	27.27	4.55	0.00
2nd Quartile	21	14.29	33.33	28.57	14.29	9.52	0.00
3rd Quartile	21	38.10	28.57	4.76	14.29	14.29	0.00
4th Quartile	22	18.18	9.09	22.73	31.82	18.18	0.00

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Half	Fund Count at Start (December 2016- December 2019)	Three-Year Percentages at End (December 2019-December 2022)			
		Top Half (%)	Bottom Half (%)	Merged/Liquidated (%)	Style Changed (%)
Investment-Grade Intermediate Funds					
Top Half	67	44.78	46.27	7.46	1.49
Bottom Half	67	40.30	41.79	14.93	2.99
Investment-Grade Short & Intermediate Funds					
Top Half	66	45.45	50.00	4.55	0.00
Bottom Half	67	40.30	40.30	16.42	2.99
High Yield Funds					
Top Half	72	45.83	54.17	0.00	0.00
Bottom Half	73	47.95	41.10	10.96	0.00
Global Income Funds					
Top Half	43	41.86	51.16	6.98	0.00
Bottom Half	43	46.51	37.21	16.28	0.00

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Quartile	Fund Count at Start (December 2012- December 2017)	Five-Year Percentages at End (December 2017-December 2022)					
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged/ Liquidated (%)	Style Changed (%)
Investment-Grade Intermediate Funds							
1st Quartile	31	29.03	25.81	19.35	9.68	12.90	3.23
2nd Quartile	30	13.33	23.33	20.00	20.00	20.00	3.33
3rd Quartile	31	16.13	9.68	16.13	25.81	25.81	6.45
4th Quartile	31	16.13	19.35	16.13	22.58	25.81	0.00
Investment-Grade Short & Intermediate Funds							
1st Quartile	32	25.00	28.13	28.13	9.38	9.38	0.00
2nd Quartile	31	16.13	9.68	19.35	25.81	25.81	3.23
3rd Quartile	32	21.88	25.00	12.50	25.00	12.50	3.13
4th Quartile	32	9.38	6.25	15.63	18.75	34.38	15.63
High Yield Funds							
1st Quartile	41	29.27	17.07	12.20	14.63	7.32	19.51
2nd Quartile	40	15.00	27.50	20.00	17.50	2.50	17.50
3rd Quartile	41	12.20	14.63	26.83	21.95	12.20	12.20
4th Quartile	41	12.20	14.63	19.51	7.32	19.51	26.83
Global Income Funds							
1st Quartile	21	28.57	23.81	4.76	4.76	4.76	33.33
2nd Quartile	20	30.00	20.00	20.00	10.00	10.00	10.00
3rd Quartile	21	9.52	19.05	38.10	14.29	19.05	0.00
4th Quartile	21	9.52	9.52	4.76	52.38	19.05	4.76

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

Half	Fund Count at Start (December 2012- December 2017)	Five-Year Percentages at End (December 2017-December 2022)			
		Top Half (%)	Bottom Half (%)	Merged/Liquidated (%)	Style Changed (%)
Investment-Grade Intermediate Funds					
Top Half	61	45.90	34.43	16.39	3.28
Bottom Half	62	30.65	40.32	25.81	3.23
Investment-Grade Short & Intermediate Funds					
Top Half	63	39.68	41.27	17.46	1.59
Bottom Half	64	31.25	35.94	23.44	9.38
High Yield Funds					
Top Half	81	44.44	32.10	4.94	18.52
Bottom Half	82	26.83	37.80	15.85	19.51
Global Income Funds					
Top Half	41	51.22	19.51	7.32	21.95
Bottom Half	42	23.81	54.76	19.05	2.38

Source: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2022. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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