

DOES PAST PERFORMANCE MATTER? THE PERSISTENCE SCORECARD

About the Persistence Scorecard

The phrase “past performance is not an indicator of future outcomes” (or some variation thereof) can be found in the fine print of most mutual fund literature. Yet due to either force of habit or conviction, 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 on a continuous basis, the Persistence Scorecard, released twice per year, tracks the consistency of top performers over yearly consecutive periods and measures performance persistence through transition matrices. As in our widely followed SPIVA® Scorecards, University of Chicago’s Center for Research in Security Prices Survivorship (CRSP) Bias Free Mutual Fund Database serves as our underlying data source.¹

S&P Dow Jones Indices is one of the world’s leading index providers, maintaining a wide variety of investable and benchmark indices to meet an array of investor needs. Our Index Research & Design team is dedicated to conducting unbiased, in-depth analysis on a broad range of topics and issues facing investors in today’s marketplace. This scorecard highlights performance persistence over three- and five-year consecutive 12-month periods and two non-overlapping three- and five-year periods.

Key features of the 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. Nevertheless, in their persistence calculations, analysts often limit their sample to funds that continue to exist over the complete time period examined, ranking only the survivors. If that happens, funds that liquidate or merge during a period of study are disregarded, biasing measurements of persistence. Using the University of Chicago’s Center for Research in Security Prices (CRSP) Survivorship Bias Free Mutual Fund Database, the Persistence Scorecard ranks all funds available at each point in time and tracks the top-quartile and top-half performers throughout the time period. This approach accounts for all initially available funds.

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¹ The CRSP Survivor-Bias-Free US Mutual Fund Database is the only complete database of both active and liquidated/merged mutual funds. It was created in 1995 and contains fund data from December 1961. Current and historical data from August 1998 has been supplied by Lipper and Thomson Reuters. The fund classifications are based on the Lipper fund classification system.

- **Clean universe:** The mutual fund universe used in these reports is composed of actively managed domestic U.S. equity funds. Index funds, sector funds and index-based dynamic (bull/bear) funds are excluded from the sample. To avoid double-counting multiple share classes, only the largest share class of a fund is used.
- **Transition matrices:** Transition matrices show the movements between quartiles and halves over two non-overlapping three- and five-year periods. They also track the percentage of funds that have merged or liquidated. In addition, we monitor movements between capitalization levels. This helps us capture, for example, the conversion of some large-cap funds to mid- and small-cap funds.
- **Tracking reports of top performers:** The tracking reports show the percentages of funds that remain in the top-quartile or top-half rankings over three- and five-consecutive-year periods.

SUMMARY OF RESULTS

- Very few funds manage to consistently stay at the top. Of the 707 funds that were in the top quartile as of September 2010, only 10% were still in the top quartile at the end of September 2012.
- For the three years ending September 2012, 23.60% of large-cap funds, 15.49% of mid-cap funds and 29.37% of small-cap funds maintained a top-half ranking over three consecutive 12-month periods. Random expectations would suggest a rate of 25%.
- Looking at longer-term performance, only 5.16% of large-cap funds, 3.21% of mid-cap funds and 5.10% of small-cap funds maintained a top-half performance over five consecutive 12-month periods. Random expectations would suggest a repeat rate of 6.25%.
- While top-quartile and top-half repeat rates have been at or below the levels one expects based on chance, there is consistency in the death rate of bottom-quartile funds. Across all market cap categories and all periods studied, fourth-quartile funds had a much higher rate of being merged and liquidated.

EXHIBITS

Exhibit 1: Performance Persistence over Three Consecutive 12-Month Periods				
Mutual Fund Category	Fund Count at Start		Percentage Remaining in Top Quartile	
	Sept-10	Sept-11	Sept-11	Sept-12
Top Quartile				
All Domestic Funds	707		37.34	10.04
All Large-Cap Funds	258		40.7	8.53
All Mid-Cap Funds	106		29.25	9.43
All Small-Cap Funds	151		34.44	9.93
All Multi-Cap Funds	192		39.58	12.5
Mutual Fund Category	Fund Count at Start		Percentage Remaining in Top Half	
	Sept-10	Sept-11	Sept-11	Sept-12
Top Half				
All Domestic Funds	1417		51.38	23.92
All Large-Cap Funds	517		56.87	23.6
All Mid-Cap Funds	213		46.95	15.49
All Small-Cap Funds	303		51.82	29.37
All Multi-Cap Funds	384		46.09	24.74

Source: S&P Dow Jones Indices. Data as of September 30, 2012. Tables are provided for illustrative purposes. Past performance is not a guarantee of future results.

Exhibit 2: Performance Persistence over Five Consecutive 12-Month Periods

Mutual Fund Category	Fund Count at Start	Percentage Remaining in Top Quartile				
	Sept-08	Sept-09	Sept-10	Sept-11	Sept-12	
Top Quartile						
All Domestic Funds	550	21.64	5.45	1.09	0.18	
All Large-Cap Funds	175	18.29	8	1.71	0	
All Mid-Cap Funds	94	25.53	5.32	0	0	
All Small-Cap Funds	127	21.26	3.15	0	0	
All Multi-Cap Funds	154	23.38	4.55	1.95	0.65	
Mutual Fund Category	Fund Count at Start	Percentage Remaining in Top Half				
	Sept-08	Sept-09	Sept-10	Sept-11	Sept-12	
Top Half						
All Domestic Funds	1098	43.9	22.59	11.66	4.46	
All Large-Cap Funds	349	47.56	25.79	15.76	5.16	
All Mid-Cap Funds	187	43.32	19.79	10.7	3.21	
All Small-Cap Funds	255	42.35	21.57	8.24	5.1	
All Multi-Cap Funds	307	41.37	21.5	10.42	3.91	

Source: S&P Dow Jones Indices. Data as of Sept 30, 2012. Tables are provided for illustrative purposes. Past performance is not a guarantee of future results.

Exhibit 3: Three-Year Transition Matrix
Performance over Two Non-Overlapping Three-Year Periods (Based on Quartiles)

Mutual Fund Category	Fund Count at Start (Sept-09)	Three-Year Percentage at End						Total (%)
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged/Liquidated (%)	Style Changed (%)	
All Domestic Funds								
1st Quartile	489	25.36	22.7	19.22	24.34	8.38	0	100
2nd Quartile	488	20.7	21.72	25.82	20.7	11.07	0	100
3rd Quartile	489	19.84	23.52	18.61	21.47	16.56	0	100
4th Quartile	488	17.83	15.98	20.08	17.21	28.89	0	100
Large-Cap Funds								
1st Quartile	170	20.59	21.76	15.29	19.41	8.82	14.12	100
2nd Quartile	170	22.35	18.24	20.59	14.12	11.18	13.53	100
3rd Quartile	169	14.2	17.75	17.75	18.93	18.93	12.43	100
4th Quartile	170	13.53	12.94	16.47	18.24	25.88	12.94	100
Mid-Cap Funds								
1st Quartile	77	14.29	14.29	10.39	15.58	12.99	32.46	100
2nd Quartile	76	19.74	11.84	15.79	13.16	11.84	27.63	100
3rd Quartile	77	6.49	12.99	12.99	6.49	16.88	44.16	100
4th Quartile	76	10.53	11.84	11.84	15.79	30.26	19.74	100

Source: S&P Dow Jones Indices. Data as of Sept 30, 2012. Tables are provided for illustrative purposes. Past performance is not a guarantee of future results.

Exhibit 3: Three-Year Transition Matrix (continued)
Performance over Two Non-Overlapping Three-Year Periods (Based on Quartiles)

Mutual Fund Category	Fund Count at Start (Sept-09)	Three-Year Percentage at End				Merged/Liquidated (%)	Style Changed (%)	Total (%)
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)			
Small-Cap Funds								
1st Quartile	116	18.97	14.66	23.28	27.59	5.17	10.35	100
2nd Quartile	115	21.74	24.35	23.48	18.26	4.35	7.82	100
3rd Quartile	116	18.97	18.97	18.97	21.55	13.79	7.76	100
4th Quartile	115	19.13	21.74	13.04	11.3	32.17	2.61	100
Multi-Cap Funds								
1st Quartile	127	16.54	20.47	13.39	18.11	7.87	23.63	100
2nd Quartile	127	13.39	12.6	16.54	18.9	14.17	24.41	100
3rd Quartile	126	17.46	15.08	16.67	11.11	17.46	22.22	100
4th Quartile	127	12.6	11.81	13.39	11.81	29.92	20.47	100

Performance over Two Non-Overlapping Three-Year Periods (Based on Halves)

Mutual Fund Category	Fund Count at Start (Sept-09)	Three-Year Percentage at End			Merged/Liquidated (%)	Style Changed (%)	Total (%)
		Top Half (%)	Bottom Half (%)				
All Domestic Funds							
Top Half	977	45.24	45.04		9.72	0	100
Bottom Half	977	38.59	38.69		22.72	0	100
Large-Cap Funds							
Top Half	340	41.47	34.71		10	13.82	100
Bottom Half	339	29.2	35.69		22.42	12.68	100
Mid-Cap Funds							
Top Half	153	30.07	27.45		12.42	30.06	100
Bottom Half	153	20.92	23.53		23.53	32.03	100
Small-Cap Funds							
Top Half	231	39.83	46.32		4.76	9.09	100
Bottom Half	231	39.39	32.47		22.94	5.2	100
Multi-Cap Funds							
Top Half	254	31.5	33.46		11.02	24.02	100
Bottom Half	253	28.46	26.48		23.72	21.34	100

Source: S&P Dow Jones Indices. Data as of September 30, 2012. Tables are provided for illustrative purposes. Past performance is not a guarantee of future results.

**Exhibit 4: Five-Year Transition Matrix
Performance over Two Non-Overlapping Five-Year Periods (Based on Quartiles)**

Mutual Fund Category	Fund Count at Start (Sept-07)	Five-Year Percentage at End						Style Changed (%)	Total (%)
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged/Liquidated (%)			
All Domestic Funds									
1st Quartile	399	24.06	19.3	20.3	23.06	13.28	0	100	
2nd Quartile	399	22.06	15.29	19.3	22.56	20.8	0	100	
3rd Quartile	398	11.81	20.6	21.61	19.35	26.63	0	100	
4th Quartile	399	19.3	21.8	16.04	12.03	30.83	0	100	
Large-Cap Funds									
1st Quartile	133	9.77	15.04	18.8	28.57	15.79	12.03	100	
2nd Quartile	133	9.77	17.29	16.54	16.54	23.31	16.54	100	
3rd Quartile	132	18.18	16.67	16.67	6.06	25.76	16.66	100	
4th Quartile	133	24.06	12.03	9.77	9.77	33.83	10.53	100	
Mid-Cap Funds									
1st Quartile	69	14.49	8.7	10.14	14.49	8.7	43.47	100	
2nd Quartile	68	7.35	7.35	14.71	5.88	19.12	45.59	100	
3rd Quartile	69	11.59	11.59	11.59	13.04	24.64	27.53	100	
4th Quartile	68	7.35	13.24	4.41	7.35	32.35	35.3	100	
Small-Cap Funds									
1st Quartile	91	15.38	20.88	20.88	24.18	10.99	7.69	100	
2nd Quartile	90	18.89	18.89	26.67	20	13.33	2.23	100	
3rd Quartile	91	23.08	23.08	12.09	15.38	19.78	6.59	100	
4th Quartile	90	17.78	11.11	15.56	14.44	34.44	6.67	100	
Multi-Cap Funds									
1st Quartile	107	13.08	13.08	10.28	14.02	19.63	29.9	100	
2nd Quartile	107	4.67	8.41	11.21	14.95	22.43	38.32	100	
3rd Quartile	107	10.28	9.35	14.02	6.54	27.1	32.71	100	
4th Quartile	107	14.95	12.15	7.48	7.48	28.97	28.97	100	

Source: S&P Dow Jones Indices. Data as of September 30, 2012. Tables are provided for illustrative purposes. Past performance is not a guarantee of future results.

Exhibit 4: Five-Year Transition Matrix (continued)
Performance over Two Non-Overlapping Five-Year Periods (Based on Halves)

Mutual Fund Category	Fund Count at Start (Sept-07)	Five-Year Percentage at End				
		Top Half (%)	Bottom Half (%)	Merged/Liquidated (%)	Style Changed (%)	Total (%)
All Domestic Funds						
Top Half	798	40.35	42.61	17.04	0	100
Bottom Half	797	36.76	34.5	28.73	0	100
Large-Cap Funds						
Top Half	266	25.94	40.23	19.55	14.28	100
Bottom Half	265	35.47	21.13	29.81	13.59	100
Mid-Cap Funds						
Top Half	137	18.98	22.63	13.87	44.52	100
Bottom Half	137	21.9	18.25	28.47	31.38	100
Small-Cap Funds						
Top Half	181	37.02	45.86	12.15	4.98	100
Bottom Half	181	37.57	28.73	27.07	6.63	100
Multi-Cap Funds						
Top Half	214	19.63	25.23	21.03	34.11	100
Bottom Half	214	23.36	17.76	28.04	30.84	100

Source: S&P Dow Jones Indices. Data as of September 30, 2012. Tables are provided for illustrative purposes. Past performance is not a guarantee of future results.

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