

CONTRIBUTOR

Priscilla Luk
Senior Director
Global Research & Design
priscilla.luk@spglobal.com

Persistence of Australian Active Funds

EXECUTIVE SUMMARY

- While comparing active funds against a benchmark index is a typical practice used to evaluate their performance, persistence is an additional test that reveals fund managers' skills in different market environments.
- In this report, we measure the performance persistence of active funds that outperformed their peers and benchmarks over consecutive three- and five-year periods, and we analyze their transition matrices over subsequent periods.
- A minority of Australian high-performing funds persistently outperformed their respective benchmarks or consistently stayed in their respective top quartiles for three consecutive years, and even fewer maintained these traits consistently for the five-year period.
- Only 2.2% of the high-performing funds from year-end 2012 maintained a top quartile rank over the four-year period, and 3.5% of them consistently beat their benchmarks.
- Over two successive three- and five-year periods, the majority of outperforming funds failed to beat their respective benchmarks, and most funds in the top quartile did not remain there consistently.
- For the five-year period, more top-quartile Australian Equity General and International Equity General funds dropped from the top to the bottom quartiles than stayed in the top quartile.
- In the Australian Equity Mid- and Small-Cap, International Equity General, and Australian Equity A-REIT fund categories, there was a higher likelihood that the funds that lagged their benchmarks in the preceding five years would outperform in the subsequent five-year period than those that had previously outperformed their benchmarks.
- Overall, results from various evaluation matrices suggest weak performance persistence for top-performing funds in Australia across three- and five-year periods.

MEASURING PERFORMANCE PERSISTENCE OF AUSTRALIAN ACTIVE FUNDS

Research suggests that actively managed winning streaks are often short lived. Twice a year, S&P Dow Jones Indices releases the Persistence Scorecard, which tracks the performance consistency of U.S. actively managed funds over consecutive years. We have consistently observed that relatively few U.S. active funds can stay at the top for years.¹ In this report, we use similar matrices to measure the persistence of Australian active funds that outperform their benchmarks and their peers over three- and five-year periods. Our study follows the fund categories and benchmarks defined in the SPIVA Australia Scorecard, a biannual report that tracks the number of active Australian funds that beat their comparable benchmarks over short- and long-term horizons.

Exhibit 1: SPIVA Categories and Their Benchmarks	
SPIVA CATEGORY	BENCHMARK INDEX
Australian Equity General	S&P/ASX 200
Australian Equity Mid- and Small-Cap	S&P/ASX Mid-Small Index
International Equity General	S&P Developed Ex-Australia Large Midcap
Australian Bonds	S&P/ASX Australian Fixed Interest 0+ Index
Australian Equity A-REIT	S&P/ASX 200 A-REIT

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

We measure the following matrices based on Australian active funds that maintain a top-quartile ranking among their peers and those that outperform their respective benchmark indices.

1. Performance Persistence Over Three Consecutive Years
2. Performance Persistence Over Five Consecutive Years
3. Three-Year Transition Matrix—Performance Over Two Non-Overlapping Three-Year Periods
4. Five-Year Transition Matrix—Performance Over Two Non-Overlapping Five-Year Periods

SECTION 1: PERSISTENCE OF FUNDS THAT MAINTAIN TOP-QUARTILE RANKING AMONG THEIR PEERS

Performance Persistence Over Three Consecutive Years: As of year-end 2014, there were 178 Australian active funds ranked in their respective top quartiles across five fund categories. 17 of them (9.6%) stayed in the top quartile in the next two consecutive years (2015 and 2016). Out of the 75 top-performing Australian large-cap equity funds, only five of them (6.7%) consistently remained in the top quartile in the following two years. The Australian Equity A-REIT funds category had the lowest tendency to stay in the top quartile over three consecutive years. In contrast, Australian bond funds had the highest retention rate in the top quartile (see Exhibit 2).

Performance Persistence Over Five Consecutive Years: Out of the 180 top-quartile Australian active funds in 2012, only 4 of them (2.2%) remained in the same quartile in the next four consecutive years (2013-2016). Similar to the observations over the three-year period, the Australian Bonds category had the lowest turnover in the top quartile over five consecutive years. In contrast, no funds in the international equity and Australian Equity REIT fund categories managed to stay in the top quartile for five consecutive years. Among the 74 top-performing Australian Equity General funds, only one remained in the top quartile (1.4%) for the period (see Exhibit 3).

¹ For details, please refer to the latest [Persistence Scorecard](#).

Exhibit 2: Performance Persistence of Australian Active Funds Over Three Consecutive Years

FUND CATEGORY	NUMBER OF FUNDS IN TOP QUARTILE AT START	% OF FUNDS STAYING IN TOP QUARTILE	
	2014	2015	2016
Australian Equity General	75	50.67	6.67
Australian Equity Mid- and Small-Cap	24	33.33	12.50
International Equity General	50	44.00	12.00
Australian Bonds	12	33.33	16.67
Australian Equity A-REIT	17	35.29	5.88
All Categories	178	43.82	9.55

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2016. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Exhibit 3: Performance Persistence of Australian Active Funds Over Five Consecutive Years

FUND CATEGORY	NUMBER OF FUNDS IN TOP QUARTILE AT START	% OF FUNDS STAYING IN TOP QUARTILE			
	2012	2013	2014	2015	2016
Australian Equity General	74	43.24	25.68	10.81	1.35
Australian Equity Mid- and Small-Cap	24	50.00	20.83	16.67	4.17
International Equity General	50	32.00	6.00	4.00	0.00
Australian Bonds	13	46.15	15.38	15.38	15.38
Australian Equity A-REIT	19	36.84	21.05	5.26	0.00
All Categories	180	40.56	18.33	9.44	2.22

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2016. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Three-Year Transition Matrix: The transition matrix tracks the trajectory of funds in each quartile over two non-overlapping periods. Out of the 71 funds in the Australian Equity General category in the top quartile as of year-end 2013, 39.4% remained in the top quartile in the subsequent three-year period (December 2013-December 2016). High-performing candidates in the Australian Equity A-REIT funds category showed the lowest persistence (only 17.7%) in maintaining a top-quartile rank; they also had a high merged or liquidation rate (17.6%). In contrast, Australian Bonds had the lowest turnover in the top quartile. Furthermore, funds that underperformed in the first three-year period had a much higher tendency to underperform or be merged or liquidated in the subsequent three-year period (see Exhibit 4).

Five-Year Transition Matrix: Over the five-year horizons, fund performance persistence became much weaker. Out of the 145 Australian funds that ranked in their respective top quartile in the five-year period ending December 2011, less than 20% remained in the same quartile, and 26.2% were liquidated or merged in the subsequent five-year period (December 2011-December 2016). Among the Australian Equity General and International Equity General funds in the top quartile, more dropped into the bottom quartiles than stayed in the top quartiles in the following five-year period. Australian Bonds exhibited the strongest persistence in the top quartile over the two non-overlapping five-year periods (see Exhibit 5).

Exhibit 4: Three-Year Transition Matrix—Performance Over Two Non-Overlapping Three-Year Periods							
QUARTILE	FUND COUNT AT START (DECEMBER 2013)	THREE-YEAR PERCENTAGES AT END (%)					
		1ST QUARTILE	2ND QUARTILE	3RD QUARTILE	4TH QUARTILE	MERGED/ LIQUIDATED	TOTAL
AUSTRALIAN EQUITY GENERAL							
1st Quartile	71	39.44	29.58	16.90	11.27	2.82	100.00
2nd Quartile	70	7.14	31.43	22.86	31.43	7.14	100.00
3rd Quartile	71	15.49	12.68	30.99	26.76	14.08	100.00
4th Quartile	70	21.43	24.29	20.00	21.43	12.86	100.00
AUSTRALIAN EQUITY MID- AND SMALL-CAP							
1st Quartile	23	47.83	34.78	13.04	0.00	4.35	100.00
2nd Quartile	23	17.39	26.09	39.13	13.04	4.35	100.00
3rd Quartile	22	4.55	9.09	18.18	59.09	9.09	100.00
4th Quartile	23	13.04	17.39	17.39	21.74	30.43	100.00
INTERNATIONAL EQUITY GENERAL							
1st Quartile	47	42.55	23.40	8.51	6.38	19.15	100.00
2nd Quartile	47	17.02	27.66	34.04	2.13	19.15	100.00
3rd Quartile	47	10.64	19.15	31.91	23.40	14.89	100.00
4th Quartile	47	6.38	10.64	14.89	44.68	23.40	100.00
AUSTRALIAN BONDS							
1st Quartile	12	66.67	25.00	8.33	0.00	0.00	100.00
2nd Quartile	13	7.69	46.15	0.00	15.38	30.77	100.00
3rd Quartile	12	16.67	16.67	50.00	16.67	0.00	100.00
4th Quartile	12	0.00	0.00	25.00	50.00	25.00	100.00
AUSTRALIAN EQUITY A-REIT							
1st Quartile	17	17.65	47.06	5.88	11.76	17.65	100.00
2nd Quartile	17	41.18	0.00	41.18	11.76	5.88	100.00
3rd Quartile	17	29.41	29.41	35.29	0.00	5.88	100.00
4th Quartile	17	0.00	11.76	11.76	64.71	11.76	100.00
ALL CATEGORIES							
1st Quartile	170	41.18	30.00	12.35	7.65	8.82	100.00
2nd Quartile	170	14.71	27.65	28.24	17.65	11.76	100.00
3rd Quartile	169	14.20	15.98	31.36	26.63	11.83	100.00
4th Quartile	169	12.43	16.57	17.75	34.32	18.93	100.00

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2016. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Exhibit 5: Five-Year Transition Matrix—Performance Over Two Non-Overlapping Five-Year Periods							
QUARTILE	FUND COUNT AT START (DECEMBER 2011)	FIVE-YEAR PERCENTAGES AT END (%)					
		1ST QUARTILE	2ND QUARTILE	3RD QUARTILE	4TH QUARTILE	MERGED/ LIQUIDATED	TOTAL
AUSTRALIAN EQUITY GENERAL							
1st Quartile	62	21.13	16.90	12.68	26.76	22.54	100.00
2nd Quartile	63	14.29	28.57	20.00	14.29	22.86	100.00
3rd Quartile	62	9.86	23.94	21.13	18.31	26.76	100.00
4th Quartile	62	20.00	7.14	17.14	20.00	35.71	100.00
AUSTRALIAN EQUITY MID- AND SMALL-CAP							
1st Quartile	18	21.74	17.39	17.39	13.04	30.43	100.00
2nd Quartile	17	17.39	26.09	8.70	21.74	26.09	100.00
3rd Quartile	18	9.09	9.09	22.73	22.73	36.36	100.00
4th Quartile	17	21.74	21.74	8.70	8.70	39.13	100.00
INTERNATIONAL EQUITY GENERAL							
1st Quartile	39	12.77	4.26	17.02	29.79	36.17	100.00
2nd Quartile	39	19.15	14.89	17.02	10.64	38.30	100.00
3rd Quartile	39	17.02	19.15	10.64	6.38	46.81	100.00
4th Quartile	39	14.89	27.66	10.64	4.26	42.55	100.00
AUSTRALIAN BONDS							
1st Quartile	10	41.67	25.00	16.67	0.00	16.67	100.00
2nd Quartile	10	15.38	15.38	15.38	7.69	46.15	100.00
3rd Quartile	10	25.00	16.67	8.33	25.00	25.00	100.00
4th Quartile	10	0.00	8.33	0.00	25.00	66.67	100.00
AUSTRALIAN EQUITY A-REIT							
1st Quartile	16	17.65	17.65	29.41	17.65	17.65	100.00
2nd Quartile	16	17.65	17.65	11.76	35.29	17.65	100.00
3rd Quartile	16	17.65	29.41	0.00	17.65	35.29	100.00
4th Quartile	16	23.53	17.65	29.41	11.76	17.65	100.00
ALL CATEGORIES							
1st Quartile	145	19.99	14.20	16.55	23.02	26.24	100.00
2nd Quartile	145	16.40	22.49	16.65	16.04	28.42	100.00
3rd Quartile	145	13.59	20.91	15.29	16.04	34.17	100.00
4th Quartile	144	17.83	15.67	14.56	13.83	38.11	100.00

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2016. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

SECTION 2: PERSISTENCE OF FUNDS THAT OUTPERFORM THEIR RESPECTIVE BENCHMARK INDICES

Performance Persistence Over Three Consecutive Years: As of year-end 2014, there were 211 Australian active funds that outperformed their respective benchmarks across five fund categories; 24 of them (11.4%) continued to outperform the benchmark in the next two consecutive years (2015 and 2016). Out of the 122 Australian large-cap equity funds that beat the S&P/ASX 200 in 2014, 12 (9.8%) consistently outperformed in the two following years. Outperforming funds in the Australian Equity

Mid- and Small-Cap category tended to have higher persistence in beating the benchmark over three consecutive years. In contrast, no funds in the Australian Bonds and Australia Equity A-REIT categories were able to outperform consistently over three consecutive years (see Exhibit 6).

Performance Persistence Over Five Consecutive Years: There were 286 Australian active funds beating their respective benchmark in 2012, and only 10 of them managed to continue their outperformance in the following four consecutive years (2013-2016). Similar to the observations over three consecutive years, not a single fund from the Australian Bond and Australian Equity A-REIT categories managed to outperform the benchmark consistently over five consecutive years; however, the Australian Equity Mid- and Small-Cap funds that were outperforming their benchmark showed relatively high persistence. Furthermore, only three out of the 100 funds in the Australian Equity General group that were beating the benchmark in 2012 continued to outperform every year between 2013 and 2016 (see Exhibit 7).

Exhibit 6: Performance Persistence of Australian Active Funds Over Three Consecutive Years

FUND CATEGORY	NUMBER OF OUTPERFORMING FUNDS AT START (2014)	% OF FUNDS OUTPERFORMING THE BENCHMARK IN CONSECUTIVE PERIODS	
		2015	2016
Australian Equity General	122	79.51	9.84
Australian Equity Mid- and Small-Cap	35	91.43	22.86
International Equity General	41	51.22	9.76
Australian Bonds	8	12.50	0.00
Australian Equity A-REIT	5	20.00	0.00
All Categories	211	72.04	11.37

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2016. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Exhibit 7: Performance Persistence of Australian Active Funds Over Five Consecutive Years

FUND CATEGORY	NUMBER OF OUTPERFORMING FUNDS AT START (2012)	% OF FUNDS OUTPERFORMING THE BENCHMARK IN CONSECUTIVE PERIODS			
		2013	2014	2015	2016
Australian Equity General	100	77.00	44.00	34.00	3.00
Australian Equity Mid- and Small-Cap	78	74.36	35.90	33.33	7.69
International Equity General	58	31.03	5.17	3.45	1.72
Australian Bonds	27	77.78	11.11	3.70	0.00
Australian Equity A-REIT	23	52.17	13.04	4.35	0.00
All Categories	286	65.03	28.32	22.38	3.50

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2016. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Three-Year Transition Matrix: As of year-end 2013, 292 Australian active funds were outperforming their respective benchmarks in their three-year returns. Of these, 60.3% recorded underperformance and almost 9% of them were merged or liquidated in the subsequent three-year period (December 2013-December 2016). Outperformers among the International Equity General and Australian Equity A-REIT funds showed the lowest persistence (only 16.7% and 7.7%, respectively), and they had a relatively low survival rate. Nevertheless, funds that underperformed in the preceding three years had a much higher tendency to continue underperforming or be merged or liquidated in the following three-year period (see Exhibit 8).

Five-Year Transition Matrix: Out of the 278 Australian funds that outperformed in the five-year period ending December 2011, over 54.3% lagged their respective benchmark and 15.5% disappeared in the following five years (December 2011-December 2016). The results are mostly consistent with those observed in the three-year transition matrix; outperforming International Equity General and Australian Equity A-REIT funds exhibited weak performance persistence. Among the Australian Equity General funds that led the benchmark, less than 30% persistently outperformed over two successive five-year periods (see Exhibit 9).

Exhibit 8: Three-Year Transition Matrix—Performance Over Two Non-Overlapping Three-Year Periods					
RELATIVE PERFORMANCE	FUND COUNT AT START (YEAR-END 2013)	THREE-YEAR PERCENTAGES AT END (%)			
		OUTPERFORM BENCHMARK	UNDERPERFORM BENCHMARK	MERGED/ LIQUIDATED	TOTAL
AUSTRALIAN EQUITY GENERAL					
Outperform Benchmark	133	35.34	60.15	4.51	100.00
Underperform Benchmark	149	26.17	60.40	13.42	100.00
AUSTRALIAN EQUITY MID- AND SMALL-CAP					
Outperform Benchmark	84	36.90	51.19	11.90	100.00
Underperform Benchmark	7	28.57	57.14	14.29	100.00
INTERNATIONAL EQUITY GENERAL					
Outperform Benchmark	37	16.22	67.57	16.22	100.00
Underperform Benchmark	151	2.65	77.48	19.87	100.00
AUSTRALIAN BONDS					
Outperform Benchmark	12	33.33	66.67	0.00	100.00
Underperform Benchmark	37	2.70	78.38	18.92	100.00
AUSTRALIAN EQUITY A-REIT					
Outperform Benchmark	26	7.69	76.92	15.38	100.00
Underperform Benchmark	42	7.14	85.71	7.14	100.00
ALL CATEGORIES					
Outperform Benchmark	292	30.82	60.27	8.90	100.00
Underperform Benchmark	386	12.69	71.50	15.80	100.00

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2016. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Exhibit 9: Five-Year Transition Matrix—Performance Over Two Non-Overlapping Five-Year Periods					
RELATIVE PERFORMANCE	FUND COUNT AT START (YEAR-END 2011)	FIVE-YEAR PERCENTAGES AT END (%)			
		OUTPERFORM BENCHMARK	UNDERPERFORM BENCHMARK	MERGED/ LIQUIDATED	TOTAL
AUSTRALIAN EQUITY GENERAL					
Outperform Benchmark	127	29.92	56.69	13.39	100.00
Underperform Benchmark	122	24.59	54.10	21.31	100.00
AUSTRALIAN EQUITY MID- AND SMALL-CAP					
Outperform Benchmark	62	58.06	30.65	11.29	100.00
Underperform Benchmark	8	62.50	12.50	25.00	100.00
INTERNATIONAL EQUITY GENERAL					
Outperform Benchmark	52	5.77	65.38	28.85	100.00
Underperform Benchmark	104	7.69	63.46	28.85	100.00
AUSTRALIAN BONDS					
Outperform Benchmark	6	50.00	50.00	0.00	100.00
Underperform Benchmark	34	23.53	47.06	29.41	100.00
AUSTRALIAN EQUITY A-REIT					
Outperform Benchmark	31	12.90	74.19	12.90	100.00
Underperform Benchmark	33	18.18	60.61	21.21	100.00
ALL CATEGORIES					
Outperform Benchmark	278	30.22	54.32	15.47	100.00
Underperform Benchmark	301	18.94	56.15	24.92	100.00

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2016. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

SECTION 3: CONCLUSION

While comparing returns against a benchmark is a common practice to evaluate the performance of active funds, performance persistence is an additional test on the fund managers' skills at overcoming different market environments. In this report, we measured the performance persistence of active funds that outperformed their peers and benchmarks over consecutive three and five-year periods, and their transition matrices over subsequent time periods.

The results showed that only small portion of Australian outperforming or high-performing funds showed persistent outperformance against their respective benchmarks or consistently stayed in their respective top quartiles over three consecutive years, and even fewer could maintain outperformance for five consecutive years. Out of the top-performing funds as of year-end 2012, only 2.2% persistently maintained a top quartile rank, and 3.5% consistently beat the benchmarks in the following four consecutive years.

The transition matrices show that over two successive three- and five-year periods, a majority of outperforming funds failed to beat their respective benchmarks, and most of the top quartile funds did not remain in the same quartile consistently. Among the top quartile Australian Equity General and International Equity General funds with the highest five-year returns, more funds dropped to the bottom quartiles than stayed in the top quartiles in the following five-year period. In the Australian Equity Mid- and Small-Cap, International Equity General, and Australian Equity A-REIT fund categories, there was a higher likelihood that the funds that lagged their benchmarks in the preceding five years would outperform in the subsequent five-year period than those that had previously outperformed their benchmarks. Overall, results from various evaluation matrices suggest weak performance persistence in top-performing funds in Australia across three- and five-year periods.

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