

## Persistence of Australian Funds

### Contributor

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### EXECUTIVE SUMMARY

- While comparing active funds against respective benchmark indices is a typical practice to evaluate their performance, persistence is an additional test that can reveal 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.
- Overall results suggested only a minority of Australian high-performing funds persisted in outperforming their respective benchmarks or consistently stayed in their respective top quartiles for three or five consecutive years.
- Among top-quartile funds, 9.7% and 2.2% consistently maintained top-quartile rankings over consecutive three- and five-year periods, respectively. Top-quartile funds in the Australian Bonds fund category had the lowest turnover over both periods.
- The transition matrix, which tracks the trajectory of funds in each quartile, suggested that top-quartile funds in the Australian Bonds fund category had the highest persistence, while Australian Equity Mid- and Small-Cap funds had the least persistence over two non-overlapping three- and five-year periods.
- Of outperforming funds, 6.5% and 1.3% consistently beat their benchmarks consecutively over three and five years, respectively. The Australian Equity A-REIT category had the highest persistence in terms of its outperforming funds (15.8%) over three consecutive years, but no fund categories showed high persistence in their outperforming funds over five consecutive years.
- Among Australian funds that outperformed their benchmarks, only 16.8% and 21.8% managed to outperform over two successive three- and five-year periods, respectively.

## 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.<sup>1</sup> 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 (2016-2018):** In 2016, there were 195 Australian active funds ranked in their respective top quartiles across five fund categories. Of these funds, 9.7% (19 funds) stayed in the top quartile over the next two consecutive years (2017 and 2018). Top-quartile funds in the Australian Bonds category had the highest retention rate, while those in the International Equity General fund category had the lowest tendency to stay in the top quartile over three consecutive years (see Exhibit 2).

**Performance Persistence over Five Consecutive Years (2014-2018):** Out of the 186 top-quartile Australian active funds in 2014, only four of them (2.2%) remained in the same quartile in the next four consecutive years (2015-2018). Similar to the observations over the three-year period, the Australian Bonds fund category had the lowest turnover in the top quartile over five consecutive years, while less than 2% of funds in the rest of the categories managed to stay in the top quartile for five consecutive years. Out of 76 Australian Equity General funds in the top quartile in 2014, only one of them (1.3%) stayed in the top quartile over the next four years (see Exhibit 3).

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

**Exhibit 2: Performance Persistence of Australian Active Funds over Three Consecutive Years (2016-2018)**

FUND CATEGORY	NUMBER OF FUNDS IN TOP QUARTILE AT START	% OF FUNDS STAYING IN TOP QUARTILE	
	2016	2017	2018
Australian Equity General	77	24.7	9.1
Australian Equity Mid- and Small-Cap	28	17.9	7.1
International Equity General	58	12.1	1.7
Australian Bonds	14	57.1	50.0
Australian Equity A-REIT	18	22.2	11.1
<b>All Categories</b>	<b>195</b>	<b>22.1</b>	<b>9.7</b>

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2018. 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 (2014-2018)**

FUND CATEGORY	NUMBER OF FUNDS IN TOP QUARTILE AT START	% OF FUNDS STAYING IN TOP QUARTILE			
	2014	2015	2016	2017	2018
Australian Equity General	76	50.0	5.3	1.3	1.3
Australian Equity Mid- and Small-Cap	26	38.5	7.7	0.0	0.0
International Equity General	54	42.6	14.8	3.7	1.9
Australian Bonds	12	25.0	16.7	16.7	16.7
Australian Equity A-REIT	18	27.8	11.1	5.6	0.0
<b>All Categories</b>	<b>186</b>	<b>42.5</b>	<b>9.7</b>	<b>3.2</b>	<b>2.2</b>

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2018. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

**Three-Year Transition Matrix (period from December 2012 to December 2015 versus period from December 2015 to December 2018):** The transition matrix tracks the trajectory of funds in each quartile over two non-overlapping periods. High-performing funds in the Australian Bonds fund category showed the highest persistence. Out of the 11 top-quartile Australian Bonds funds in the three-year period ending December 2014, 81.8% remained in the top quartile in the subsequent three-year period (December 2015-December 2018). In contrast, high-performing funds in the Australia Equity Mid- and Small-Cap fund category showed the lowest persistence (only 24% maintained a top-quartile ranking). Apart from the Australian Equity A-REIT fund category, funds ranked in the bottom two quartiles for the first three-year period had a higher tendency to be merged or liquidated in the subsequent three-year period (see Exhibit 4).

**Five-Year Transition Matrix (period from December 2008 to December 2013 versus period from December 2013 to December 2018):** Consistent with the observation from the three-year transition matrix, top-quartile funds in the Australian Bonds fund category had the highest persistence, while the Australian Equity Mid- and Small-Cap funds had the least persistence in the five-year transition matrix. Overall, out of the 160 Australian funds that ranked in their respective top quartile in the five-year period ending December 2013, less than half of them were in the first and second quartiles, respectively, in the subsequent five-year period (December 2013-December 2018; see Exhibit 5).

<b>Exhibit 4: Three-Year Transition Matrix – Performance over Two Non-Overlapping Three-Year Periods (Period from December 2012 to December 2015 versus Period from December 2015 to December 2018)</b>							
QUARTILE	FUND COUNT AT START (DECEMBER 2015)	THREE-YEAR PERCENTAGES AT END (%)					TOTAL
		1ST QUARTILE	2ND QUARTILE	3RD QUARTILE	4TH QUARTILE	MERGED/ LIQUIDATED	
<b>AUSTRALIAN EQUITY GENERAL</b>							
1st Quartile	72	25.0	27.8	13.9	26.4	6.9	100.0
2nd Quartile	73	11.0	21.9	35.6	16.4	15.1	100.0
3rd Quartile	72	20.8	13.9	25.0	22.2	18.1	100.0
4th Quartile	72	29.2	19.4	9.7	15.3	26.4	100.0
<b>AUSTRALIAN EQUITY MID- AND SMALL-CAP</b>							
1st Quartile	25	24.0	24.0	20.0	16.0	16.0	100.0
2nd Quartile	24	16.7	16.7	37.5	16.7	12.5	100.0
3rd Quartile	25	16.0	28.0	8.0	32.0	16.0	100.0
4th Quartile	24	20.8	8.3	20.8	25.0	25.0	100.0
<b>INTERNATIONAL EQUITY GENERAL</b>							
1st Quartile	48	25.0	31.3	8.3	27.1	8.3	100.0
2nd Quartile	48	8.3	18.8	35.4	16.7	20.8	100.0
3rd Quartile	47	17.0	14.9	31.9	14.9	21.3	100.0
4th Quartile	47	10.6	21.3	14.9	25.5	27.7	100.0
<b>AUSTRALIAN BONDS</b>							
1st Quartile	11	81.8	18.2	0.0	0.0	0.0	100.0
2nd Quartile	11	27.3	54.5	18.2	0.0	0.0	100.0
3rd Quartile	11	9.1	18.2	63.6	9.1	0.0	100.0
4th Quartile	11	0.0	0.0	9.1	81.8	9.1	100.0
<b>AUSTRALIAN EQUITY A-REIT</b>							
1st Quartile	17	35.3	11.8	11.8	23.5	17.6	100.0
2nd Quartile	17	29.4	23.5	17.6	17.6	11.8	100.0
3rd Quartile	17	17.6	35.3	11.8	35.3	0.0	100.0
4th Quartile	17	5.9	17.6	47.1	23.5	5.9	100.0
<b>ALL CATEGORIES</b>							
1st Quartile	173	29.5	26.0	12.1	23.1	9.2	100.0
2nd Quartile	173	13.9	22.5	32.9	15.6	15.0	100.0
3rd Quartile	172	18.0	18.6	25.6	22.1	15.7	100.0
4th Quartile	171	18.7	17.0	16.4	24.6	23.4	100.0

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2018. 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  
(Period from December 2008 to December 2013 versus Period from December 2013 to December 2018)**

QUARTILE	FUND COUNT AT START (DECEMBER 2013)	FIVE-YEAR PERCENTAGES AT END (%)					TOTAL
		1ST QUARTILE	2ND QUARTILE	3RD QUARTILE	4TH QUARTILE	MERGED/ LIQUIDATED	
<b>AUSTRALIAN EQUITY GENERAL</b>							
1st Quartile	66	24.2	22.7	18.2	19.7	15.2	100.0
2nd Quartile	66	19.7	30.3	12.1	21.2	16.7	100.0
3rd Quartile	65	9.2	20.0	29.2	21.5	20.0	100.0
4th Quartile	66	16.7	12.1	21.2	19.7	30.3	100.0
<b>AUSTRALIAN EQUITY MID- AND SMALL-CAP</b>							
1st Quartile	22	18.2	27.3	31.8	4.5	18.2	100.0
2nd Quartile	21	19.0	19.0	23.8	14.3	23.8	100.0
3rd Quartile	22	13.6	27.3	18.2	18.2	22.7	100.0
4th Quartile	21	9.5	19.0	14.3	38.1	19.0	100.0
<b>INTERNATIONAL EQUITY GENERAL</b>							
1st Quartile	45	20.0	24.4	20.0	17.8	17.8	100.0
2nd Quartile	43	16.3	16.3	18.6	20.9	27.9	100.0
3rd Quartile	43	23.3	23.3	16.3	20.9	16.3	100.0
4th Quartile	44	13.6	13.6	20.5	20.5	31.8	100.0
<b>AUSTRALIAN BONDS</b>							
1st Quartile	11	54.5	36.4	9.1	0.0	0.0	100.0
2nd Quartile	10	30.0	50.0	0.0	0.0	20.0	100.0
3rd Quartile	11	18.2	9.1	27.3	27.3	18.2	100.0
4th Quartile	10	0.0	0.0	30.0	40.0	30.0	100.0
<b>AUSTRALIAN EQUITY A-REIT</b>							
1st Quartile	16	43.8	0.0	12.5	25.0	18.8	100.0
2nd Quartile	17	29.4	17.6	17.6	23.5	11.8	100.0
3rd Quartile	16	18.8	31.3	31.3	18.8	0.0	100.0
4th Quartile	16	0.0	25.0	37.5	25.0	12.5	100.0
<b>ALL CATEGORIES</b>							
1st Quartile	160	26.3	22.5	19.4	16.3	15.6	100.0
2nd Quartile	157	20.4	24.8	15.3	19.1	20.4	100.0
3rd Quartile	157	15.3	22.3	24.2	21.0	17.2	100.0
4th Quartile	157	12.1	14.0	22.3	24.2	27.4	100.0

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2018. 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 (2016-2018):** There were 170 Australian active funds that outperformed their respective benchmarks across five fund categories in 2016; only 11 of them (6.5%) continued to outperform the benchmark over the next two consecutive years (2017-2018). Out of the 76 Australian Equity General funds that outperformed the [S&P/ASX 200](#) in 2016, four of them (5.3%) continued to outperform over the next two consecutive years. Outperforming funds in

the Australian Equity A-REIT category had the highest persistence in outperforming the benchmark over three consecutive years. In contrast, Australian Bonds had the least consistency of outperformance over three consecutive years (see Exhibit 6).

**Performance Persistence over Five Consecutive Years (2014-2018):** There were 223 Australian active funds that beat their respective benchmark in 2014, and three of them (1.3%) managed to continue their outperformance in the following four consecutive years (2015-2018). None of the fund categories showed strong persistence in their outperforming funds. The International Equity General funds had the highest retention rate (2.4%) over five consecutive years (see Exhibit 7).

FUND CATEGORY	NUMBER OF OUTPERFORMING FUNDS AT START	% OF FUNDS OUTPERFORMING THE BENCHMARK IN CONSECUTIVE PERIODS		
	2016	2017	2018	
Australian Equity General	76	40.8	5.3	
Australian Equity Mid- and Small-Cap	23	17.4	8.7	
International Equity General	34	32.4	5.9	
Australian Bonds	18	66.7	0.0	
Australian Equity A-REIT	19	63.2	15.8	
<b>All Categories</b>	<b>170</b>	<b>41.2</b>	<b>6.5</b>	

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2018. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

FUND CATEGORY	NUMBER OF OUTPERFORMING FUNDS AT START	% OF FUNDS OUTPERFORMING THE BENCHMARK IN CONSECUTIVE PERIODS				
	2013	2014	2015	2016	2017	
Australian Equity General	125	81.6	8.8	4.0	1.6	
Australian Equity Mid- and Small-Cap	42	90.5	21.4	2.4	0.0	
International Equity General	42	54.8	11.9	4.8	2.4	
Australian Bonds	9	11.1	11.1	11.1	0.0	
Australian Equity A-REIT	5	40.0	20.0	0.0	0.0	
<b>All Categories</b>	<b>223</b>	<b>74.4</b>	<b>12.1</b>	<b>4.0</b>	<b>1.3</b>	

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2018. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

**Three-Year Transition Matrix (period from December 2012 to December 2015 versus period from December 2015 to December 2018):** Of the 297 Australian active funds that outperformed their benchmarks between December 2012 and December 2015, only 16.8% of them continued to outperform in the subsequent three-year period (December 2015-December 2018). Outperforming funds in the Australian Bonds and Australian Equity A-REIT categories had the highest persistence in outperformance (77.8% and 66.7%, respectively), while those in Australian Equity Mid- and Small-Cap and Australian Equity General categories had the lowest tendency to continue to outperform (10.7% and 12.1%, respectively; see Exhibit 8).

**Five-Year Transition Matrix (period from December 2008 to December 2013 versus period from December 2013 to December 2018):** Out of the 325 Australian funds that outperformed in the five-year period ending December 2013, over 61.2% underperformed their respective benchmark and 16.9% were merged or liquidated in the following five years (December 2013-December 2018). None

of the fund categories exhibited strong performance persistence, with International Equity General funds having the lowest tendency to outperform over the two successive five-year periods (see Exhibit 9).

<b>Exhibit 8: Three-Year Transition Matrix – Performance over Two Non-Overlapping Three-Year Periods (Period from December 2012 to December 2015 versus Period from December 2015 to December 2018)</b>						
RELATIVE PERFORMANCE	FUND COUNT AT START (DECEMBER 2015)	THREE-YEAR PERCENTAGES AT END (%)				
		OUTPERFORMED BENCHMARK	UNDERPERFORMED BENCHMARK	MERGED/ LIQUIDATED	TOTAL	
<b>AUSTRALIAN EQUITY GENERAL</b>						
Outperformed Benchmark	173	12.1	77.5	10.4	100.0	
Underperformed Benchmark	116	17.2	56.9	25.9	100.0	
<b>AUSTRALIAN EQUITY MID- AND SMALL-CAP</b>						
Outperformed Benchmark	75	10.7	74.7	14.7	100.0	
Underperformed Benchmark	23	8.7	65.2	26.1	100.0	
<b>INTERNATIONAL EQUITY GENERAL</b>						
Outperformed Benchmark	31	25.8	67.7	6.5	100.0	
Underperformed Benchmark	159	10.1	67.9	22.0	100.0	
<b>AUSTRALIAN BONDS</b>						
Outperformed Benchmark	9	77.8	22.2	0.0	100.0	
Underperformed Benchmark	35	2.9	94.3	2.9	100.0	
<b>AUSTRALIAN EQUITY A-REIT</b>						
Outperformed Benchmark	9	66.7	22.2	11.1	100.0	
Underperformed Benchmark	59	27.1	64.4	8.5	100.0	
<b>ALL CATEGORIES</b>						
Outperformed Benchmark	297	16.8	72.4	10.8	100.0	
Underperformed Benchmark	392	14.0	66.3	19.6	100.0	

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2018. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Exhibit 9: Five-Year Transition Matrix – Performance over Two Non-Overlapping Five-Year Periods (Period from December 2008 to December 2013 versus Period from December 2013 to December 2018)</b>					
<b>RELATIVE PERFORMANCE</b>	<b>FUND COUNT AT START (DECEMBER 2013)</b>	<b>FIVE-YEAR PERCENTAGES AT END (%)</b>			
		<b>OUTPERFORMED BENCHMARK</b>	<b>UNDERPERFORMED BENCHMARK</b>	<b>MERGED/ LIQUIDATED</b>	<b>TOTAL</b>
<b>AUSTRALIAN EQUITY GENERAL</b>					
Outperformed Benchmark	121	24.0	60.3	15.7	100.0
Underperformed Benchmark	142	12.7	62.7	24.6	100.0
<b>AUSTRALIAN EQUITY MID- AND SMALL-CAP</b>					
Outperformed Benchmark	82	25.6	52.4	22.0	100.0
Underperformed Benchmark	4	75.0	25.0	0.0	100.0
<b>INTERNATIONAL EQUITY GENERAL</b>					
Outperformed Benchmark	59	11.9	69.5	18.6	100.0
Underperformed Benchmark	116	9.5	64.7	25.9	100.0
<b>AUSTRALIAN BONDS</b>					
Outperformed Benchmark	22	18.2	72.7	9.1	100.0
Underperformed Benchmark	20	5.0	70.0	25.0	100.0
<b>AUSTRALIAN EQUITY A-REIT</b>					
Outperformed Benchmark	41	24.4	63.4	12.2	100.0
Underperformed Benchmark	24	4.2	87.5	8.3	100.0
<b>ALL CATEGORIES</b>					
Outperformed Benchmark	325	21.8	61.2	16.9	100.0
Underperformed Benchmark	306	11.1	65.4	23.5	100.0

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2018. 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 of 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.

Overall results from various evaluation matrices showed that only a minority of Australian high-performing funds persisted in outperforming their respective benchmarks or consistently stayed in their respective top quartiles for three or five consecutive years. Of the top-quartile funds, 9.7% and 2.2% consistently maintained top-quartile rankings over consecutive three- and five-year periods, respectively. Top-quartile funds in the Australian Bonds category had the lowest turnover for both periods. The transition matrix tracking the trajectory of funds in each quartile suggested that top-quartile funds in the Australian Bonds category had the highest persistence, while the Australian Equity Mid- and Small-Cap funds had the least persistence over two non-overlapping three- and five-year periods.

Among funds that outperformed their benchmarks, 6.5% and 1.3% of them consistently beat their benchmarks consecutively over three- and five-year periods, respectively. Australian Equity A-REIT category had the highest persistence in their outperforming funds (15.8%) over three consecutive years, but no fund categories showed high persistence in their outperforming funds over five consecutive years. Among Australian funds that outperformed their benchmarks, only 16.8% and 21.8% managed to outperform over two successive three- and five-year periods, respectively.



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