

SPIVA[®] Australia

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The SPIVA Australia Scorecard measures the performance of Australian actively managed funds against their respective benchmarks over various time horizons, covering large-, mid- and small-cap equity funds, real estate funds and bond funds, providing statistics on outperformance rates, survivorship rates and fund performance dispersion.

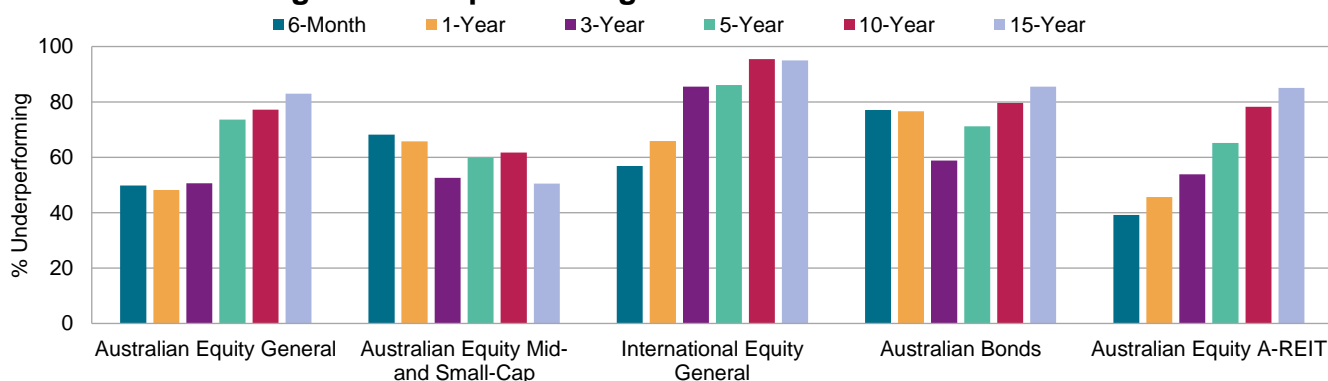
Since the first publication of the S&P Indices Versus Active Funds (SPIVA) U.S. Scorecard in 2002, S&P Dow Jones Indices has been the de facto scorekeeper of the ongoing active versus passive debate.

Mid-Year 2022 Highlights

In the first half of 2022, outperformance was close to a coin flip for Australian Equity General funds, with 50% underperforming the **S&P/ASX 200**. Over the same period, 40% of Australian Equity A-REIT funds underperformed their respective benchmarks, while a majority of funds lagged in the fixed income and small-cap equity categories. An increasing majority of active funds underperformed in every reported category over longer-term horizons (see Exhibit 1 and Report 1).

Experience the active vs. passive debate on a global scale.

Exhibit 1: Percentage of Underperforming Active Australian Funds



Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2022. Past performance is no guarantee of future results. The S&P/ASX Australian Fixed Interest 0+ Index was launched Sept. 5, 2014. The S&P/ASX Mid-Small was launched Aug. 15, 2011. All data prior to index launch date is hypothetical back-tested data. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

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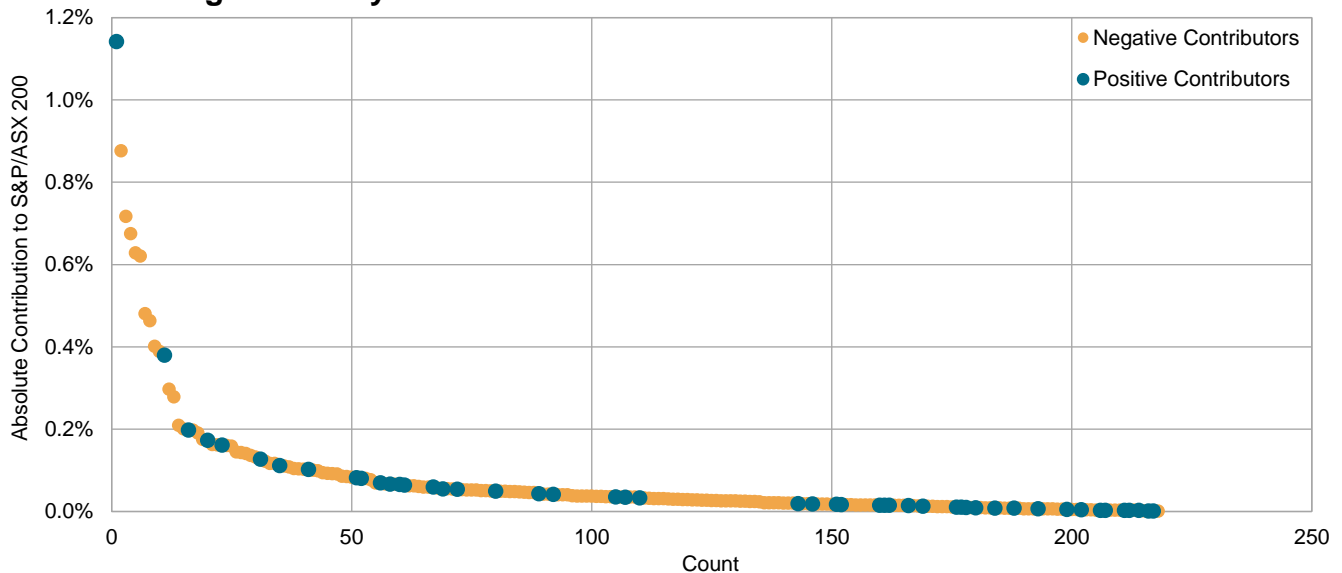
- **Australian Equity General Funds:** The S&P/ASX 200 dropped 9.9% in the first six months of the year, while Australian Equity General funds shed 10.0% and 11.0% on equal and asset-weighted bases, respectively. Of funds in this category, 49.8% underperformed the benchmark over the first half of the year, with underperformance rates rising to 73.6%, 77.2% and 82.9% over the 5-, 10- and 15-year horizons, respectively.
- **Australian Equity Mid- and Small-Cap Funds:** The S&P/ASX Mid-Small gave up 20.3% in the six months ending June 30, 2022, and just 31.8% of Australian Equity Mid- and Small-Cap funds beat the index, while more than 81% underperformed on a risk-adjusted basis. Funds in this category lost 24.2% and 26.0% on equal- and asset-weighted bases, respectively, for the same period. The longer-term record within the small- and mid-cap category was relatively stronger, with just 51.0% underperforming over 15 years.
- **International Equity General Funds:** International equity funds returned -17.2% and -16.6% on equal and asset-weighted bases in the six-month period ending on June 30, 2022, with 56.9% of funds failing to keep up with the [S&P Developed Ex-Australia LargeMidCap](#). Over the 5- and 10-year periods, more than 85% and 95% of funds underperformed, respectively.
- **Australian Bond Funds:** The [S&P/ASX Australian Fixed Interest 0+ Index](#) recorded a loss of 9.7% in the first six months of 2022, while funds in the Australian Bonds category declined by 9.4% and 8.9% on equal- and asset-weighted bases, respectively. Of the active funds in this category, 77.1% underperformed the benchmark, with a similar record over the longer term: 71.2% and 79.6% underperformed over 5- and 10-year periods, respectively.
- **Australian Equity A-REIT Funds:** In the six-month period ending June 30, 2022, Australian Equity A-REIT funds posted losses of 22.2% and 22.5% on equal- and asset-weighted bases, respectively. Only 39.2% underperformed, although underperformance rates increased over longer time horizons, reaching 85.1% over the 15-year horizon.
- **Fund Survivorship:** Liquidation rates for most active fund categories were moderate in the one-year period ending June 30, 2022. Australian Equity A-REIT funds recorded the highest liquidation rate, at 12.3%. In contrast, only 2.7% of Australian Equity Mid- and Small-Cap funds failed to survive. Over longer horizons, survivorship rates were significantly lower, with over 50% of funds merged or liquidated in all but one reported category (see Report 2).

Market Context

As rising inflation, higher interest rates and surging commodity prices darkened the landscape of the global economy, the first half of 2022 was characterized by broad-based declines in both equities and fixed income securities around the world, including Australia.

There have been times and places when the easiest way to generate outperformance was by getting a few bold selections right, but within large-cap Australian equities during the first half of 2022, focusing on a few big names to *avoid* may have proved more productive. **There were few standout heroes in the S&P/ASX 200, each surrounded by villains:** 9 out of the top 10 and 16 out of the top 20 largest absolute contributors to the S&P/ASX 200’s performance had a negative return; and although positive returns were available, they were widely dispersed among many small winners.

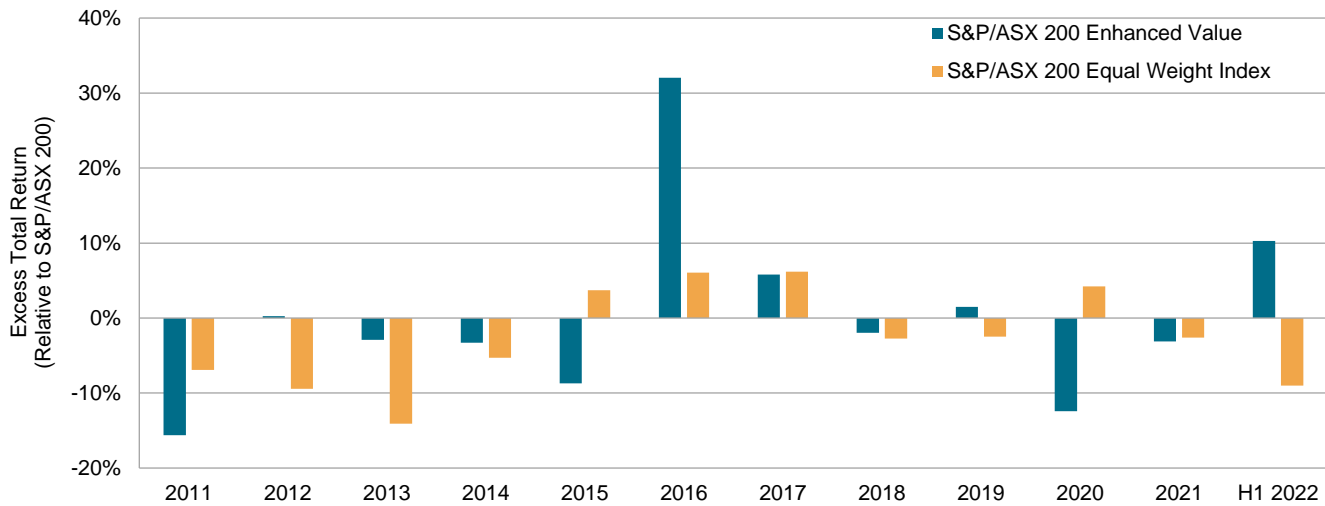
Exhibit 2: Single-Security S&P/ASX 200 Contributions H1 2022



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2022. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Among strategies often favored by active managers, **value benefited from tailwinds in H1 2022, while equal weight lagged capitalization weightings.** The [S&P/ASX Enhanced Value](#)’s six-month performance placed it on track for the best calendar year in relative terms since 2016, outperforming the S&P/ASX 200 by 10% in the first six months of 2022, while the [S&P/ASX 200 Equal Weight Index](#) is set for its worst year since 2015 in relative terms, lagging the capitalization-weighted benchmark by 9%.

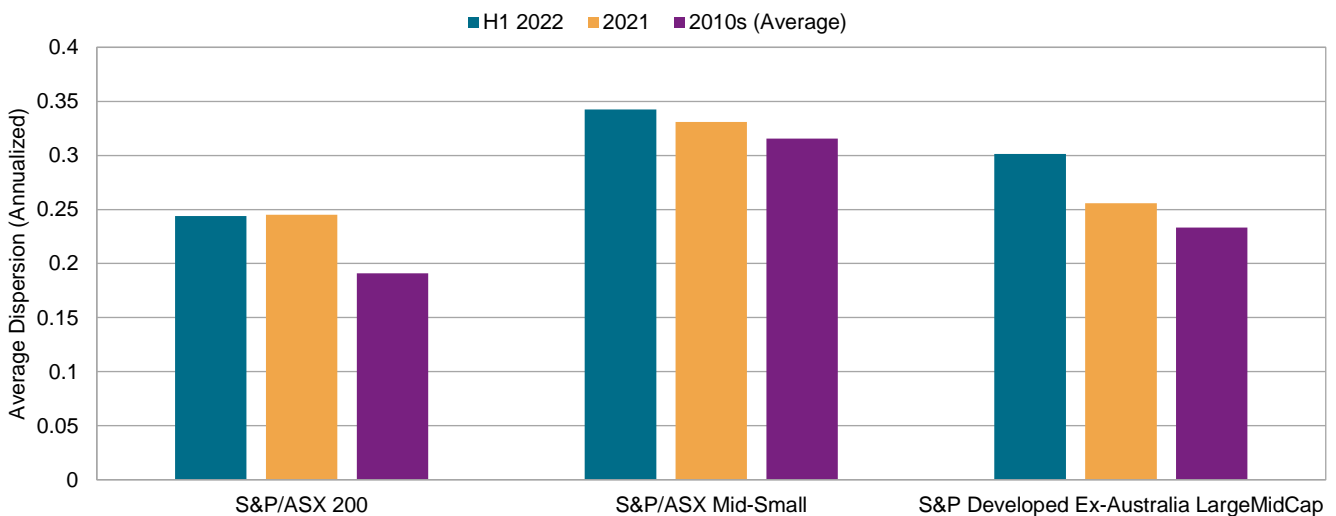
Exhibit 3: Enhanced Value and Equal Weight Relative Annual Performance



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2022. Index performance based on excess total returns in AUD relative to the S&P/ASX 200. Past performance is no guarantee of future results. The S&P/ASX 200 Equal Weight Index was launched on Oct. 17, 2016. The S&P/ASX 200 Enhanced Value was launched on July 31, 2017. All data prior to index launch date is hypothetical back-tested data. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

A common measure of the opportunity set for active managers to add value through stock selection, **dispersion, was elevated in the first half of 2022, particularly among Australian mid and small caps.** S&P/ASX 200 dispersion averaged 24% annualized in the first six months of 2022, which, while slightly below 2021’s level, was over 5 percentage points higher than the 2010-2019 average. Meanwhile, Australian mid and small-cap and international equity dispersion averaged higher than both 2021 and the 2010-2019 average.

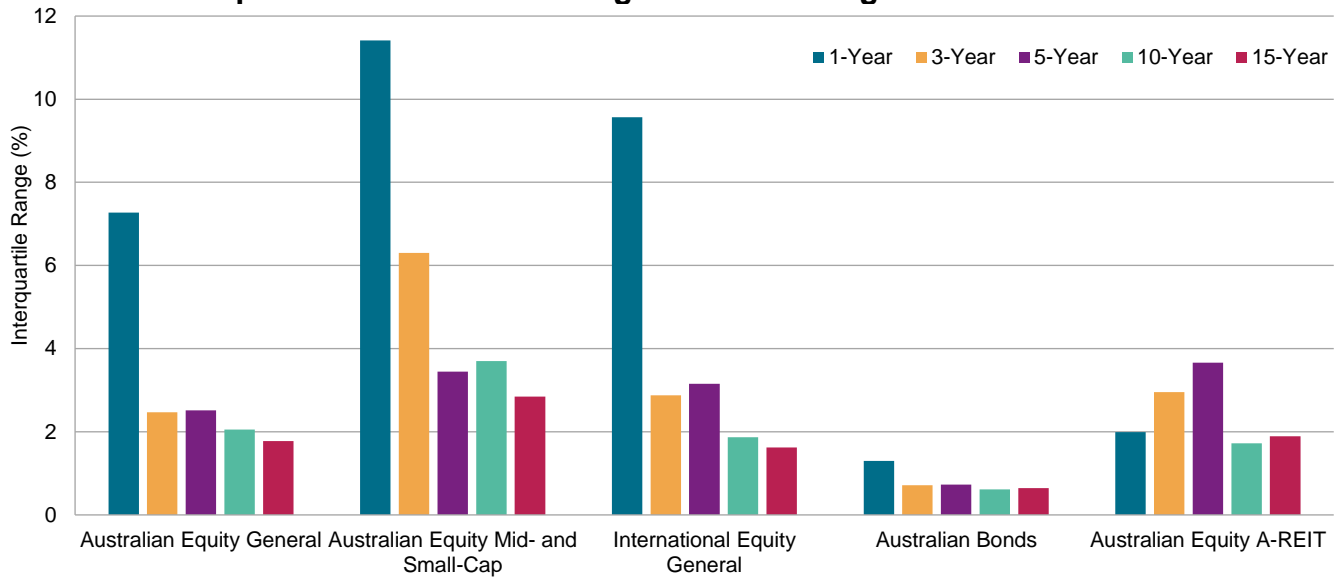
Exhibit 4: Benchmark Dispersion by Equity Category



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2022. Past performance is no guarantee of future results. The S&P/ASX Mid-Small was launched Aug. 15, 2011. All data prior to index launch date is hypothetical back-tested data. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Wide dispersion acted to elevate fund selection risk. The interquartile range measured among one-year performances of Australian Equity Mid and Small-Cap Funds (see Report 5) was 11% over the 12 months ending June 2022, compared with an average fund return of -18% (see Report 3). The interquartile ranges of the Australian Equity General and International Equity General fund performances were also notably wide, highlighting the significant fund selection risk that investors may have faced; a significant proportion of funds would have performed very differently from the “average” active fund.

Exhibit 5: Interquartile Performance Ranges across Categories



Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2022. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

A Unique Scorecard for the Active Versus Passive Debate

Since its first publication 20 years ago, the SPIVA Scorecard has served as the de facto scorekeeper of the active versus passive debate. For two decades, we have heard passionate arguments from believers in both camps when headline numbers have deviated from their beliefs.

Beyond the SPIVA Scorecard's widely cited headline numbers is a rich data set that addresses issues related to measurement techniques, universe composition and fund survivorship that are far less frequently discussed but are often much more fascinating. These data sets are rooted in the following fundamental principles of the SPIVA Scorecard, with which regular readers will be familiar.

- **Survivorship Bias Correction:** Many funds might be liquidated or merged during a period of study. However, for someone making an investment decision at the beginning of the period, these funds are part of the opportunity set. Unlike other commonly available comparison reports, SPIVA Scorecards account for the entire opportunity set—not just the survivors—thereby eliminating survivorship bias.
- **Apples-to-Apples Comparison:** Fund returns are often compared with a popular benchmark regardless of their investment category. The SPIVA Australia Scorecard makes an appropriate comparison by measuring a fund's returns against the returns of a benchmark that reflects the fund's investment category.
- **Asset-Weighted Returns:** Average returns for a fund group are often calculated using only equal weighting, which means the returns of an AUD 10 billion fund affect the average in the same manner as the returns of an AUD 10 million fund. An accurate representation of how market participants fared in a particular period can be ascertained by calculating weighted average returns where each fund's return is weighted by net assets. SPIVA Scorecards show both equal- and asset-weighted averages.
- **Data Cleaning:** SPIVA Scorecards avoid double-counting multiple share classes in all count-based calculations by using only the share class with greater assets. Index, leveraged and inverse funds, along with other index-linked products, are excluded because this is meant to be a scorecard for active managers.

Reports

Report 1a: Percentage of Funds Outperformed by the Index (Based on Absolute Return)

Fund Category	Comparison Index	YTD (%)	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)	15-Year (%)
Australian Equity General	S&P/ASX 200	49.83	47.87	50.30	73.62	77.23	82.93
Australian Equity Mid- and Small-Cap	S&P/ASX Mid-Small	68.21	65.77	52.59	59.85	61.76	50.55
International Equity General	S&P Developed Ex-Australia LargeMidCap	56.90	65.83	85.56	86.10	95.41	95.02
Australian Bonds	S&P/ASX Australian Fixed Interest 0+ Index	77.05	76.56	58.82	71.19	79.63	85.48
Australian Equity A-REIT	S&P/ASX 200 A-REIT	39.22	45.61	53.85	65.15	78.21	85.06

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2022. Outperformance is based on equal-weighted fund counts. Index performance based on total return. Past performance is no guarantee of future results. The S&P/ASX Australian Fixed Interest 0+ Index was launched Sept. 5, 2014. The S&P/ASX Mid-Small was launched Aug. 15, 2011. All data prior to index launch date is hypothetical back-tested data. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Report 1b: Percentage of Funds Outperformed by the Index (Based on Risk-Adjusted Return)

Fund Category	Comparison Index	3-Year (%)	5-Year (%)	10-Year (%)	15-Year (%)
Australian Equity General	S&P/ASX 200	51.20	76.38	78.46	82.93
Australian Equity Mid- and Small-Cap	S&P/ASX Mid-Small	53.33	64.39	62.75	51.65
International Equity General	S&P Developed Ex-Australia LargeMidCap	90.74	90.73	96.33	93.67
Australian Bonds	S&P/ASX Australian Fixed Interest 0+ Index	-	77.97	75.93	82.26
Australian Equity A-REIT	S&P/ASX 200 A-REIT	-	63.64	73.08	82.76

Source: S&P Dow Jones Indices LLC, Morningstar. Results shown for all time horizons over which the comparison index total return was positive. Data for periods ending June 30, 2022. Risk-adjusted return is computed as the annualized average monthly return divided by the annualized standard deviation of the monthly return for the measured periods. Past performance is no guarantee of future results. The S&P/ASX Australian Fixed Interest 0+ Index was launched Sept. 5, 2014. The S&P/ASX Mid-Small was launched Aug. 15, 2011. All data prior to index launch date is hypothetical back-tested data. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Report 2: Survivorship of Funds

Fund Category	No. of Funds at Start	Survivorship (%)
YTD		
Australian Equity General	301	97.67
Australian Equity Mid- and Small-Cap	151	98.68
International Equity General	290	97.93
Australian Bonds	61	100.00
Australian Equity A-REIT	51	100.00
All Categories	854	98.36
1-Year		
Australian Equity General	305	94.75
Australian Equity Mid- and Small-Cap	149	97.32
International Equity General	278	95.32
Australian Bonds	64	95.31
Australian Equity A-REIT	57	87.72
All Categories	853	94.96
3-Year		
Australian Equity General	334	82.34
Australian Equity Mid- and Small-Cap	135	89.63
International Equity General	270	84.07
Australian Bonds	68	86.76
Australian Equity A-REIT	65	75.38
All Categories	872	85.70
5-Year		
Australian Equity General	326	73.93
Australian Equity Mid- and Small-Cap	132	78.03
International Equity General	259	76.83
Australian Bonds	59	86.44
Australian Equity A-REIT	66	74.24
All Categories	842	75.38

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2022. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 2: Survivorship of Funds (cont.)

Fund Category	No. of Funds at Start	Survivorship (%)
10-Year		
Australian Equity General	325	62.77
Australian Equity Mid- and Small-Cap	102	66.67
International Equity General	218	56.42
Australian Bonds	54	72.22
Australian Equity A-REIT	78	58.97
All Categories	777	56.27
15-Year		
Australian Equity General	328	47.26
Australian Equity Mid- and Small-Cap	91	54.95
International Equity General	221	40.72
Australian Bonds	62	48.39
Australian Equity A-REIT	87	44.83
All Categories	789	42.67

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2022. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3: Average Fund Performance (Equal-Weighted)

Index/Fund Category	YTD (%)	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)	15-Year (%)
S&P/ASX 200	-9.93	-6.47	3.34	6.83	9.29	4.67
Australian Equity General	-10.00	-5.81	3.74	5.96	8.74	4.34
S&P/ASX Mid-Small	-20.27	-14.10	4.11	6.63	9.03	2.88
Australian Equity Mid- and Small-Cap	-24.24	-17.57	5.31	7.56	10.11	5.62
S&P Developed Ex-Australia LargeMidCap	-16.20	-6.93	8.09	10.39	14.50	7.28
International Equity General	-17.23	-11.41	5.61	8.00	12.20	5.35
S&P/ASX Australian Fixed Interest 0+ Index	-9.66	-10.70	-2.66	0.81	2.52	4.40
Australian Bonds	-9.40	-10.51	-2.45	0.54	2.19	3.89
S&P/ASX 200 A-REIT	-23.53	-12.26	-2.75	4.41	9.17	1.50
Australian Equity A-REIT	-22.21	-11.66	-2.41	3.49	8.40	0.95

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2022. Returns for periods greater than one year are annualized. Index performance based on total return. Funds are equal weighted, but indices are not. Past performance is no guarantee of future results. The S&P/ASX Australian Fixed Interest 0+ Index was launched Sept. 5, 2014. The S&P/ASX Mid-Small was launched Aug. 15, 2011. All data prior to index launch date is hypothetical back-tested data. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Report 4: Average Fund Performance (Asset-Weighted)

Index/Fund Category	YTD (%)	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)	15-Year (%)
S&P/ASX 200	-9.93	-6.47	3.34	6.83	9.29	4.67
Australian Equity General	-10.98	-6.37	3.79	6.08	9.03	4.65
S&P/ASX Mid-Small	-20.27	-14.10	4.11	6.63	9.03	2.88
Australian Equity Mid- and Small-Cap	-26.00	-19.41	4.08	6.43	9.49	4.88
S&P Developed Ex-Australia LargeMidCap	-16.20	-6.93	8.09	10.39	14.50	7.28
International Equity General	-16.63	-11.42	4.48	7.49	12.31	5.93
S&P/ASX Australian Fixed Interest 0+ Index	-9.66	-10.70	-2.66	0.81	2.52	4.40
Australian Bonds	-8.87	-10.07	-2.09	0.84	2.51	4.26
S&P/ASX 200 A-REIT	-23.53	-12.26	-2.75	4.41	9.17	1.50
Australian Equity A-REIT	-22.46	-11.62	-2.24	3.48	8.58	1.06

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2022. Index performance based on total returns. Returns for periods greater than one year are annualized. Past performance is no guarantee of future results. The S&P/ASX Australian Fixed Interest 0+ Index was launched Sept. 5, 2014. The S&P/ASX Mid-Small was launched Aug. 15, 2011. All data prior to index launch date is hypothetical back-tested data. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Report 5: Quartile Breakpoints of Fund Performance

Fund Category	Third Quartile	Second Quartile	First Quartile
YTD			
Australian Equity General	-12.66	-9.72	-6.01
Australian Equity Mid- and Small-Cap	-29.06	-24.57	-19.45
International Equity General	-21.29	-16.81	-12.47
Australian Bonds	-10.56	-10.20	-9.81
Australian Equity A-REIT	-23.92	-22.76	-20.57
1-Year			
Australian Equity General	-7.91	-5.26	-0.64
Australian Equity Mid- and Small-Cap	-22.77	-17.22	-11.36
International Equity General	-14.63	-8.95	-5.07
Australian Bonds	-11.94	-11.27	-10.64
Australian Equity A-REIT	-12.82	-11.68	-10.83
3-Year			
Australian Equity General	2.61	3.85	5.08
Australian Equity Mid- and Small-Cap	1.50	4.97	7.80
International Equity General	4.43	5.81	7.30
Australian Bonds	-3.01	-2.66	-2.29
Australian Equity A-REIT	-3.73	-1.77	-0.77

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2022. Index performance based on total returns. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 5: Quartile Breakpoints of Fund Performance (cont.)

Fund Category	Third Quartile	Second Quartile	First Quartile
5-Year			
Australian Equity General	4.80	6.30	7.31
Australian Equity Mid- and Small-Cap	5.25	6.76	8.71
International Equity General	6.63	8.23	9.79
Australian Bonds	0.13	0.63	0.86
Australian Equity A-REIT	1.67	4.25	5.33
10-Year			
Australian Equity General	7.82	8.87	9.87
Australian Equity Mid- and Small-Cap	7.94	9.39	11.64
International Equity General	11.62	12.65	13.49
Australian Bonds	1.97	2.30	2.59
Australian Equity A-REIT	7.60	8.68	9.32
15-Year			
Australian Equity General	3.44	4.27	5.22
Australian Equity Mid- and Small-Cap	3.77	5.15	6.62
International Equity General	4.89	5.67	6.51
Australian Bonds	3.88	4.16	4.52
Australian Equity A-REIT	0.02	0.90	1.91

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2022. Index performance based on total returns. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Appendix A

SPIVA Styles and Morningstar Fund Classifications

Data from Morningstar is obtained for all managed funds domiciled in Australia for which month-end data is available during the performance period. The data include the most comprehensive Australian fund data on active and finalized (merged or liquidated) funds over the chosen period. Funds are classified based on the Morningstar fund classification system, and the SPIVA Australia Scorecard covers the Australian Equity General (large-cap equity), Australian Equity Mid- and Small-Cap, International Equity General, Australian Bonds and Australian Equity A-REIT categories.

The Morningstar classification system produces narrow, style-based classifications for Australian equity funds. 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 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 6: Australian Equity Funds – SPIVA and Morningstar Categories

SPIVA Category	Morningstar Category
Australian Equity General	Australia Fund Equity - Australia Large Blend
	Australia Fund Equity - Australia Large Growth
	Australia Fund Equity - Australia Large Value
Australian Equity Mid- and Small-Cap	Australia Fund Equity - Australia Mid/Small Blend
	Australia Fund Equity - Australia Mid/Small Growth
	Australia Fund Equity - Australia Mid/Small Value
International Equity General	Australia Fund Equity - World Large Blend
	Australia Fund Equity - World Large Growth
	Australia Fund Equity - World Large Value
Australian Bonds	Australia Fund Bonds - Australia
Australian Equity A-REIT	Australia Fund Equity - Australia Real Estate

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

Benchmarks

The chosen benchmarks are shown in Exhibit 3. All index returns are total returns (i.e., include dividend reinvestment) in Australian dollars. There has been no deduction from index returns to account for fund investment expenses. It is important to note that active fund returns are after expenses, but they do not include loads and entry fees. To ensure the study is robust and fair, representative benchmarks were selected for each fund category, but not all funds adopt the benchmarks stipulated. However, a vast majority do set their performance hurdle based on either the assigned benchmarks in this report, or a similar alternative.

Exhibit 7: 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
International Equity General	S&P Developed Ex-Australia LargeMidCap
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 Indices LLC, Morningstar. Table is provided for illustrative purposes.

Appendix B: Glossary

Percentage of Funds Outperformed by the Index

To correct for survivorship bias, we use the opportunity set available at the beginning of the period as the denominator. We determine the count of funds that have survived and beat the index. We then report percentage of funds that did not survive and beat the index.

Survivorship (%)

The survivorship measure represents the percentage of funds in existence at the beginning of the time period that are still active at the end of the time period.

Equal-Weighted Fund Performance

Equal-weighted returns for a particular style category and time horizon are determined by compounding the simple average of the monthly returns of all active funds that were available at the start of the period.

Asset-Weighted Fund Performance

Asset-weighted returns for a particular style category are calculated similarly, except based on a weighted average return of fund returns each month, with each fund's return weighted by its total net assets. Asset-weighted returns can be a better indicator of category performances because they reflect the returns of the total money invested across the sample of funds.

Quartile Breakpoints

The p^{th} percentile for a set of data is the value that is greater than or equal to $p\%$ of the data but is less than or equal to $(100-p)\%$ of the data. In other words, it is a value that divides the data into two parts: the lower $p\%$ of the values and the upper $(100-p)\%$ of the values. The first quartile is the 75th percentile, which is the value separating the elements of a population into the lower 75% and the upper 25%. The second quartile is the 50th percentile, and the third quartile is the 25th percentile. For fund category quartiles in a particular time horizon, the data used is the return of the largest surviving share class of the fund net of fees, excluding loads.

Survivorship Bias

Many funds might liquidate or merge during a period of study. This usually occurs due to continued poor performance by the fund. Therefore, if index returns were compared to fund returns using only surviving funds, the comparison would be biased in favor of the fund category. The SPIVA reports remove this bias in three ways. The first method to remove the bias is to use the entire investment opportunity set, made up of all funds in that particular category at the outset of the period, as the denominator for outperformance calculations. The second is explicitly to show the survivorship rate in each category. The final way is to construct a peer average return series for each category based on all available funds at the outset of the period.

Fees

The fund returns used are net of fees, excluding loads.

Indices

A benchmark index provides an investment vehicle against which fund performance can be measured.

S&P/ASX 200

The S&P/ASX 200 is recognized as the institutional investable benchmark in Australia. The index covers approximately 80% of Australian equity market capitalization. Index constituents are drawn from eligible companies listed on the Australian Securities Exchange. The

S&P/ASX 200 is a highly liquid and investable index that is designed to address investment managers' needs to benchmark against a portfolio characterized by sufficient size and liquidity.

S&P/ASX Mid-Small

The S&P/ASX Mid-Small is designed to measure performance of companies included in the [S&P/ASX 300](#) but not in the [S&P/ASX 50](#). It is a combination of the [S&P/ASX MidCap 50](#) and the [S&P/ASX Small Ordinaries](#). The index covers approximately 18% of Australian equity market capitalization.

S&P Developed Ex-Australia LargeMidCap

The S&P Developed Ex-Australia LargeMidCap is a float-adjusted, market-capitalization-weighted index comprising large- and mid-cap companies in developed markets, excluding Australia. It represents approximately 85% of each relevant market's total available capital. This index is part of the S&P Global BMI (Broad Market Index) Series.

S&P/ASX Australian Fixed Interest 0+ Index

The S&P/ASX Australian Fixed Interest 0+ Index is part of the S&P/ASX Australian Fixed Interest 0+ Index Series, a broad benchmark index series designed to measure the performance of Australian bonds meeting investability criteria.

S&P/ASX 200 A-REIT

The [S&P/ASX 200 A-REIT](#) is a sector subindex of the S&P/ASX 200. The index seeks to provide investors with exposure to Australian Real Estate Investment Trusts (A-REITs), which are captured under the Global Industry Classification Standard (GICS® Tier 2).

Performance Disclosure/Back-Tested Data

The S&P/ASX Australian Fixed Interest 0+ Index was launched September 5, 2014. The S&P/ASX Mid-Small was launched August 15, 2011. The S&P/ASX 200 Equal Weight Index was launched on October 17, 2016. The S&P/ASX 200 Enhanced Value was launched on July 31, 2017. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance, and is based on the index methodology in effect on the index launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Complete index methodology details are available at www.spglobal.com/spdji. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only; not for use with retail investors.

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