S&P Dow Jones Indices

A Division of S&P Global

SPIVA® Australia

Contributors

Anu R. Ganti, CFA Senior Director Index Investment Strategy anu.ganti@spglobal.com

Grace Stoddart

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

Davide di Gioia

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

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

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.

Mid-Year 2023 Highlights

A slim majority (55%) of Australian Equity General funds underperformed the <u>S&P/ASX 200</u> in the first half of 2023. A higher percentage of funds underperformed their respective benchmarks in the International Equity General and Australian Equity A-REIT categories. Funds in the Australian Equity Mid- and Small-Cap and Australian Bonds categories had a better record: 48% and 45% underperformed their benchmarks, respectively.

Exhibit 1: Percentage of Underperforming Active Australian Funds



Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30,2023. Past performance is no guarantee of future results. Chart is provided for illustrative purposes. Underperformance rates for the Australian Equity Mid- and Small-Cap and Australian Bonds categories are reported for time horizons over which the respective benchmark indices were live.

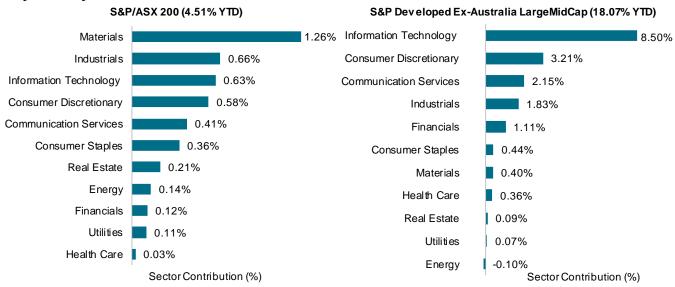
- Australian Equity General Funds: The S&P/ASX 200 gained 4.5% in the first half of 2023, while on average, Australian Equity General funds rose 4.6% on an equal-weighted basis and 4.7% on an asset-weighted basis. The underperformance rate over this period was 55%, with the proportion of underperforming funds increasing to 81%, 79% and 81% over the 5-, 10- and 15-year time horizons, respectively.

- Australian Equity Mid- and Small-Cap Funds: The S&P/ASX Mid-Small rose 3.0% in the first half of the year, with Australian Equity Mid- and Small-Cap funds posting average gains of 3.7% on an equal-weighted basis and 5.1% on an asset-weighted basis. In this period, 48% of funds underperformed the benchmark, increasing to 64% over the 5-year horizon and 76% over the 10-year horizon.
- International Equity General Funds: In the first six months of the year, 74% of funds in the International Equity General category underperformed the <u>S&P Developed Ex-Australia LargeMidCap</u>, which gained 18.1% over the period. International Equity General funds gained 16.1% and 14.8% on equal- and asset-weighted bases, respectively. Underperformance rates increased over longer time horizons, with 95% of funds failing to beat the benchmark over 15 years.
- Australian Bonds Funds: The <u>S&P/ASX Australian Fixed Interest 0+ Index</u> rose 1.7% in the first half of 2023, while Australian Bonds funds posted similar average returns of 1.7% on an equal-weighted basis and 1.9% on an asset-weighted basis. The proportion of active Australian Bonds funds that underperformed the benchmark in this period was 45%, with this percentage increasing to 48% over the three-year horizon and 62% over the five-year horizon.
- Australian Equity A-REIT Funds: In the first half of 2023, 88% of funds in the Australian Equity A-REIT category underperformed the <u>S&P/ASX 200 A-REIT</u>, the highest rate of underperformance among reported categories. The S&P/ASX 200 A-REIT gained 3.9% over the period, while on average, active funds gained 2.8% on an equal-weighted basis and 2.5% on an asset-weighted basis.
- Fund Survivorship: Liquidation rates were moderate in the first half of 2023, with the number of merged or liquidated funds in the single digits across all but one category. International Equity General funds had the highest attrition rate, with 3.5% of funds merged or liquidated over the six-month period. The attrition rate increased over longer time horizons, with 57.7% of funds across all categories merged or liquidated in the 15 years between June 2008 and June 2023.

Market Context

The turnaround in Australian large-cap equities from the latter half of 2022 continued in the first half of 2023, with the S&P/ASX 200 up 4.5%. Materials and Industrials were the top sectoral contributors, while outside of Australia, Information Technology was the dominant sector, contributing to almost half of the S&P Developed Ex-Australia LargeMidCap's YTD performance of 18.1%.

Exhibit 2: Information Technology Dominated outside of Australia, While Materials Was Key Locally



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2023. Index performance based on total return in AUD. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Germane to the dichotomy of Australian domestic versus international equity performance, a potentially important source of outperformance for Australian managers has been tilting toward countries outside of Australia. Exhibit 3 illustrates that during years in which international equities outperformed relative to Australian large caps, the underperformance rates of actively managed Australian equity funds tended to improve. 2013 is a prime example, with the lowest annual underperformance rate over the period studied coinciding with the S&P Developed Ex-Australia LargeMidCap outperformance of 28% over the S&P/ASX 200.

In the first half of 2023, the S&P Developed Ex-Australia LargeMidCap outperformed by 14%. This may have created a tailwind for domestic active managers looking overseas for excess returns, along with a corresponding higher hurdle for international equity managers, which perhaps helped to explain the 74% underperformance rate for the International Equity General category.

90 2018 80 2016 Australian Equity General 70 % Underperforming 2019 2014 60 2022 2023 YTD 2017 50 2020 $R^2 = 0.34$ 2021 40 2015 2013 30 20 10 n -15.0% -10.0% -5.0% 0.0% 5.0% 10.0% 15.0% 20.0% 25.0% 30.0% S&P Developed Ex-Australia LargeMidCap vs. S&P/ASX 200 Relative Return

Exhibit 3: Country Tilts outside of Australia Tended to Lower Underperformance Rates

Source: S&P Dow Jones Indices LLC. Data as of June 30, 2023. Index performance based on total return in AUD. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Skillful country tilts as well as sector tilts were further rewarded by the rising sector and country dispersion within the S&P/ASX 200 and S&P Developed Ex-Australia LargeMidCap, respectively, as we observe in Exhibit 4.

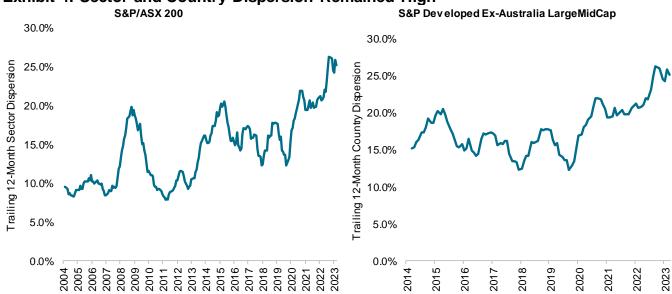


Exhibit 4: Sector and Country Dispersion Remained High

Source: S&P Dow Jones Indices LLC. Data as of June 30, 2023. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Another possibly beneficial trend for managers with more diversified holdings across the cap spectrum was the decline in concentration within Australian large caps during the first half of 2023, measured via the Herfindahl-Hirschman Index (HHI) in Exhibit 5. As a result, it is not

surprising that the <u>S&P/ASX 200 Equal Weight Index</u>, which has a small-cap tilt relative to the S&P/ASX 200, outperformed its benchmark YTD.

S&P/ASX 200 HHI

Exhibit 5: Concentration within Australian Large Caps Decreased in 2023

Source: S&P Dow Jones Indices LLC. Data as of June 30, 2023. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Finally, the generally positively skewed distribution of equity returns has been a key hindrance for more concentrated active managers globally, as outperformance tends to be driven by a few winners, and Australia is no exception. Exhibit 6 shows that the S&P/ASX 200's constituent returns have been positively skewed in 5 out of the past 10 years and through the first half of 2023. Perhaps not coincidentally, two out of the three years when most Australian Equity General funds outperformed were during years when constituent returns were negatively skewed.

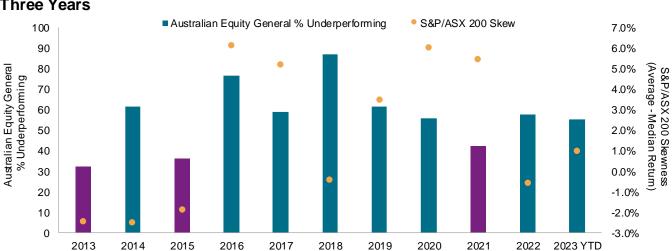


Exhibit 6: Negative Skewness Coincided with Majority Outperformance in Two out of Three Years

Source: S&P Dow Jones Indices LLC, FactSet. Data as of June 30, 2023. 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 over 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	55.29	76.49	57.43	80.86	79.14	80.89
Australian Equity Mid-and Small- Cap	S&P/ASX Mid-Small	48.10	65.00	59.87	63.57	75.70	-
International Equity General	S&P Developed Ex- Australia LargeMidCap	73.72	75.97	83.39	91.24	94.09	94.96
Australian Bonds	S&P/ASX Australian Fixed Interest 0+ Index	44.93	31.34	47.89	62.12	-	-
Australian Equity A-REIT	S&P/ASX 200 A-REIT	88.24	84.31	70.77	65.67	77.46	81.91

Sources: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. Outperformance is based on equal-weighted fund counts. Index performance based on total return. Past performance is no guarantee of future results. Table is provided for illustrative purposes. Underperformance rates for Australian Bonds and Australian Equity Mid- and Small-Cap categories are reported for time horizons over which the respective benchmark indices were live.

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	51.60	82.00	80.67	81.99
Australian Equity Mid-and Small-Cap	S&P/ASX Mid-Small	59.21	65.71	75.70	-
International Equity General	S&P Developed Ex- Australia LargeMidCap	81.98	91.97	96.36	96.22
Australian Bonds	S&P/ASX Australian Fixed Interest 0+ Index	-	60.61	-	-
Australian Equity A-REIT	S&P/ASX 200 A-REIT	61.54	64.18	71.83	78.72

Sources: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. Index performance based on total return. Results shown for all time horizons over which the comparison index total return was positive. 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. Table is provided for illustrative purposes. Underperformance rates for Australian Bonds and Australian Equity Mid- and Small-Cap categories are reported for time horizons over which the respective benchmark indices were live.

Report 2: Survivorship of Funds

Fund Category	No. of Funds at Start	Survivorship (%)
YTD		
Australian Equity General	293	97.95
Australian Equity Mid- and Small-Cap	158	99.37
International Equity General	312	96.47
Australian Bonds	69	98.55
Australian Equity A-REIT	51	98.04
All Categories	883	97.73
1-Year		
Australian Equity General	302	93.38
Australian Equity Mid- and Small-Cap	160	96.88
International Equity General	308	91.88
Australian Bonds	67	97.01
Australian Equity A-REIT	51	96.08
All Categories	888	93.92
3-Year		
Australian Equity General	343	78.72
Australian Equity Mid- and Small-Cap	152	90.79
International Equity General	283	78.09
Australian Bonds	71	85.92
Australian Equity A-REIT	65	73.85
All Categories	914	80.74
5-Year		
Australian Equity General	350	71.71
Australian Equity Mid- and Small-Cap	140	81.43
International Equity General	274	69.34
Australian Bonds	66	78.79
Australian Equity A-REIT	67	70.15
All Categories	897	72.91

Sources: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. 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	326	61.04
Australian Equity Mid- and Small-Cap	107	64.49
International Equity General	220	53.64
Australian Bonds	53	64.15
Australian Equity A-REIT	71	63.38
All Categories	777	59.85
15-Year		
Australian Equity General	361	42.94
Australian Equity Mid-and Small-Cap	106	50.00
International Equity General	238	36.97
Australian Bonds	60	45.00
Australian Equity A-REIT	94	42.55
All Categories	859	42.26

Sources: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. 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	4.51	14.78	11.12	7.16	8.56	6.65
Australian Equity General	4.58	13.08	11.16	6.09	7.75	6.30
S&P/ASX Mid-Small	3.04	13.44	9.43	5.66	9.82	-
Australian Equity Mid- and Small-Cap	3.75	9.67	8.74	5.65	9.75	8.15
S&P Developed Ex-Australia LargeMidCap	18.07	23.07	13.65	11.74	13.57	10.47
International Equity General	16.08	21.18	11.26	9.20	11.30	8.34
S&P/ASX Australian Fixed Interest 0+Index	1.71	1.26	-3.58	0.46	-	-
Australian Bonds	1.72	1.87	-2.88	0.49	2.09	3.86
S&P/ASX 200 A-REIT	3.94	8.10	8.12	3.48	7.66	5.15
Australian Equity A-REIT	2.77	7.02	7.83	2.69	6.92	4.73

Sources: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. 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. Table is provided for illustrative purposes. Index returns for the S&P/ASX Mid-Small and S&P/ASX Australian Fixed Interest 0+ Index are reported for time horizons over which the indices were live.

Report 4: Average Fund Performance (Asset-Weighted)

report in stronage rains		10001	gcu,			
Index/Fund Category	YTD (%)	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)	15-Year (%)
S&P/ASX 200	4.51	14.78	11.12	7.16	8.56	6.65
Australian Equity General	4.72	13.47	11.31	6.34	8.00	6.72
S&P/ASX Mid-Small	3.04	13.44	9.43	5.66	9.82	-
Australian Equity Mid-and Small-Cap	5.05	10.89	7.95	4.80	9.10	7.33
S&P Developed Ex-Australia LargeMidCap	18.07	23.07	13.65	11.74	13.57	10.47
International Equity General	14.75	20.35	9.80	8.54	10.99	8.86
S&P/ASX Australian Fixed Interest 0+ Index	1.71	1.26	-3.58	0.46	-	-
Australian Bonds	1.88	2.28	-2.35	0.78	2.38	4.21
S&P/ASX 200 A-REIT	3.94	8.10	8.12	3.48	7.66	5.15
Australian Equity A-REIT	2.51	6.70	7.77	2.58	7.06	4.82

Sources: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. Returns for periods greater than one year are annualized. Index performance based on total returns. Past performance is no guarantee of future results. Table is provided for illustrative purposes. Index returns for the S&P/ASX Mid-Small and S&P/ASX Australian Fixed Interest 0+ Index are reported for time horizons over which the indices were live.

Report 5: Quartile Breakpoints of Fund Performance

Fund Category	Third Quartile	Second Quartile	First Quartile
YTD			
Australian Equity General	3.46	4.39	5.53
Australian Equity Mid- and Small-Cap	0.23	3.61	7.04
International Equity General	11.94	15.28	18.45
Australian Bonds	1.48	1.76	2.16
Australian Equity A-REIT	1.75	2.96	3.68
1-Year			
Australian Equity General	10.96	13.31	14.80
Australian Equity Mid- and Small-Cap	6.07	11.00	15.31
International Equity General	17.42	20.62	23.28
Australian Bonds	1.09	1.65	2.20
Australian Equity A-REIT	5.62	7.35	7.79
3-Year			
Australian Equity General	9.76	11.38	13.12
Australian Equity Mid- and Small-Cap	5.20	8.81	12.38
International Equity General	8.61	11.45	13.33
Australian Bonds	-3.77	-3.46	-3.13
Australian Equity A-REIT	7.51	7.84	8.43

 $Sources: S\&P\ Dow\ Jones\ Indices\ LLC,\ Morningstar.\ Data\ for\ periods\ ending\ June\ 30,\ 2023.\ Index\ performance\ based\ on\ total\ returns.\ Past\ performance\ is\ no\ guarantee\ of\ future\ results.\ Table\ is\ provided\ for\ illustrative\ purposes.$

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

Fund Category	Third Quartile	Second Quartile	First Quartile
5-Year			
Australian Equity General	5.19	6.27	7.35
Australian Equity Mid- and Small-Cap	3.03	5.38	7.99
International Equity General	7.75	9.40	10.97
Australian Bonds	0.12	0.42	0.75
Australian Equity A-REIT	1.22	3.42	4.32
10-Year			
Australian Equity General	6.80	7.90	8.94
Australian Equity Mid- and Small-Cap	7.94	9.07	10.88
International Equity General	10.56	11.74	12.71
Australian Bonds	2.00	2.21	2.50
Australian Equity A-REIT	6.35	7.28	7.87
15-Year			
Australian Equity General	5.60	6.48	7.55
Australian Equity Mid- and Small-Cap	6.49	7.78	9.32
International Equity General	8.11	8.82	9.62
Australian Bonds	3.75	4.12	4.41
Australian Equity A-REIT	4.15	5.03	5.65

 $Sources: S\&P\ Dow\ Jones\ Indices\ LLC,\ Morningstar.\ Data\ for\ periods\ ending\ June\ 30,\ 2023.\ Index\ performance\ based\ on\ total\ returns.\ Past\ performance\ is\ no\ guarantee\ of\ future\ results.\ Table\ is\ provided\ for\ illustrative\ purposes.$

Appendix A

SPIVA Styles and Morningstar Fund Classifications

Data from Morningstar is obtained for all managed funds¹ 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 7: Australian Equity Funds – SPIVA and Morningstar Categories

SPIVA Category	Morningstar Category
	Australia Fund Equity - Australia Large Blend
Australian Equity General	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
	Australia Fund Equity - World Large Blend
International Equity General	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.

Includes open-ended managed funds and ETFs.

Benchmarks

The chosen benchmarks are shown in Exhibit 8. 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 8: 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 pth 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 <u>S&P/ASX 300</u> but not in the <u>S&P/ASX 50</u>. It is a combination of the <u>S&P/ASX MidCap 50</u> and the <u>S&P/ASX Small Ordinaries</u>. 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).

General Disclaimer

© 2023 S&P Dow Jones Indices. All rights reserved. S&P, S&P 500, SPX, SPY, The 500, US500, US 30, S&P 100, S&P COMPOSITE 1500, S&P 400, S&P MIDCAP 400, S&P 600, S&P SMALLCAP 600, S&P GIVI, GLOBAL TITANS, DIVIDEND ARISTOCRATS, Select Sector, S&P MAESTRO, S&P PRISM, S&P STRIDE, GICS, SPIVA, SPDR, INDEXOLOGY, ITraxx, iBoxx, ABX, ADBI, CDX, CMBX, MBX, MCDX, PRIMEX, HHPI and SOVX are trademarks of S&P Global, Inc. ("S&P Global") or its affiliates. DOW JONES, DJIA, THE DOW and DOW JONES INDUSTRIAL AVERAGE are trademarks of Dow Jones Trademark Holdings LLC ("Dow Jones"). These trademarks together with others have been licensed to S&P Dow Jones Indices LLC. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. This document does not constitute an offer of services in jurisdictions where S&P Dow Jones Indices LLC, S&P Global, Dow Jones or their respective affiliates (collectively "S&P Dow Jones Indices") do not have the nece ssary licenses. Except for certain custom index calculation services, all information provided by S&P Dow Jones Indices is impersonal and not tailored to the needs of any person, entity or group of persons. S&P Dow Jones Indices receives compensation in connection with licensing its indices to third parties and providing custom calculation services. Past performance of an index is not an indication or quarantee of fu ture results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be available through investable instruments based on that index. S&P Dow Jones Indices does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P Dow Jones Indices makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC is not an investment advisor, and S&P Dow Jones Indices makes no representation regarding the advisability of investing in any such investmentfund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. S&P Dow Jones Indices is not an investment adviser, commodity trading advisor, commodity pool operator, broker dealer, fiduciary, promoter" (as defined in the Investment Company Act of 1940, as amended), "expert" as enumerated within 15 U.S.C. § 77k(a) or tax advisor. Inclusion of a security, commodity, crypto currency or other asset within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, commodity, crypto currency or other asset, nor is it considered to be investment advice or commodity trading advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof ("Content") may be modified, reverse-engineered, reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P Dow Jones Indices. The Content shall not be used for any unlawful or unauthorized purposes. S&P Dow Jones Indices and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fee s, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Global keeps certain activities of its various divisions and business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions and business units of S&P Global may have information that is not available to other business units. S&P Global has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate or otherwise address.

ASX, ALL ORDINARIES are trademarks of ASX Operations Pty Ltd. and have been licensed for use by S&P Dow Jones Indices.