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SPIVA[®] Australia Scorecard

SUMMARY

- S&P Dow Jones Indices has been the de facto scorekeeper of the ongoing active versus passive debate since the first publication of the U.S. SPIVA Scorecard in 2002. Over the years, we have built on more than a decade of experience publishing the report by expanding scorecard coverage into Australia, Canada, Europe, India, Japan, Latin America, and South Africa. While the report will not end the debate on active versus passive investing in Australia, we hope to make a meaningful contribution by examining market segments in which one strategy works better than the other.
- The SPIVA Australia Scorecard reports on the performance of actively managed Australian mutual funds against their respective benchmark indices over one-, three-, and five-year investment horizons. In this scorecard, we evaluated returns of more than 605 Australian equity funds (large, mid, and small cap, as well as A-REIT), 287 international equity funds, and 68 Australian bond funds.
- There is no persistent trend in the yearly active versus index figures, but we have consistently observed that the majority of Australian active funds in most categories fail to beat the comparable benchmark indices over five-year horizons. As of December 2015, the majority of Australian funds in all categories, except Australian mid- and small-cap funds, were outperformed by their respective benchmarks over the five-year period. International equity and Australian bond funds had the highest rates of funds underperforming their respective benchmark indices.
- **Australian General Equity Funds:** In 2015, the [S&P/ASX 200](#) recorded a small return of 2.6%. Over the same period, the majority of Australian large-cap equity funds (63.8%) outperformed the benchmark, with an equal-weighted average gain of 3.9%. However, only 32.8% of funds in this category managed to beat the benchmark over the five-year period.

- **Australian Mid- and Small-Cap Equity Funds:** The S&P/ASX Mid-Small Index posted a return of 10.8% in 2015 and the Australian mid- and small-cap equity funds achieved an average return of 18.5% in the same period. Over the past one-year period, less than one-third of Australian mid- and small-cap funds (27.3%) underperformed the S&P/ASX Mid-Small Index. This is consistent with the observations over the three- and five-year periods, when a minority of Australian mid- and small-cap funds (29.9% and 28.9%, respectively) underperformed their corresponding benchmarks.
- **International Equity Funds:** The [S&P Developed Ex-Australia LargeMidCap](#) gained 12.3% in 2015, while international equity funds recorded a smaller average gain of 10.0% in the same period. A majority of international equity funds (72.3%) underperformed the S&P Developed Ex-Australia LargeMidCap over the same period, which is consistent with the observations for the three- and five-year periods, when 86.7% and 88.2% of funds underperformed the benchmark, respectively.
- **Australian Bond Funds:** For 2015, Australian bond funds posted an average return of 1.8%, lagging the [S&P/ASX Australian Fixed Interest 0+ Index](#), which recorded a gain of 2.6% in the same period. Actively managed funds in this category have not performed well compared with their benchmark over the one-, three-, and five-year horizons, with 85.7%, 86%, and 87% of funds underperforming the benchmark, respectively.
- **Australian A-REIT Funds:** Australian A-REIT funds recorded an average return of 12.8% in 2015, underperforming the [S&P/ASX 200 A-REIT](#) by 1.5%. The majority of the funds in this category were beaten by the benchmark, with 84.1%, 89%, and 85% of funds lagging the S&P/ASX 200 A-REIT over the one-, three-, and five-year horizons, respectively.
- **Fund Survivorship:** Over the one-year period, 3.7% of Australian funds from all measured categories were merged or liquidated, with Australian bond and international equity funds disappearing at the fastest rates; 7.0% and 6.8%, respectively. Over the five-year horizon, Australian funds from all categories had an overall survivorship rate of 78.3%, with Australian mid- and small-cap funds recording the highest survivorship rate (84.5%) and international equity funds disappearing at the fastest rate (25.7%).
- **Equal-Weighted Average Fund Returns:** Over the one-, three-, and five-year periods ending December 2015, the Australian large-cap and mid- and small-cap equity fund categories recorded higher-than-benchmark average returns. However, the average return of international equity, Australian bond, and Australian A-REIT funds consistently lagged their respective benchmarks, with international funds underperforming by the most significant margin.
- **Asset-Weighted Average Fund Returns:** Apart from Australian mid- and small-cap equity funds, asset-weighted average returns for all fund categories exceeded their respective equal-weighted average returns across all observed periods, indicating that larger funds performed better than smaller funds in these peer groups. Nevertheless, the asset-weighted average returns of international equity, Australian bond, and Australian A-REIT funds still lagged their respective benchmark returns across all observed periods.

A UNIQUE SCORECARD FOR THE ACTIVE VERSUS PASSIVE DEBATE

There is nothing novel about the index versus active debate. It has been a contentious subject for decades, and there are a few strong believers on both sides, with the vast majority of investors falling somewhere in between. Since its first publication 14 years ago, the SPIVA Scorecard has served as the de facto scorekeeper of the active versus passive debate. For more than a decade, 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 results in the returns of an AUD 10 billion fund affecting the average in the same manner as the returns of an AUD 10 million fund. However, the SPIVA Australia Scorecard shows both equal- and asset-weighted averages. Equal-weighted returns are a measure of average fund performance, while asset-weighted returns are a measure of the performance of the average invested dollar.
- **Data Cleaning:** SPIVA Scorecards avoid double counting multiple share classes in all count-based calculations, using only the share class with greater assets. Since this is meant to be a scorecard for active managers, index funds, leveraged, and inverse funds and other index-linked products are excluded.

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REPORTS

Report 1: Percentage of Funds Outperformed by the Index

Fund Category	Comparison Index	One-Year (%)	Three-Year (%)	Five-Year (%)
Australian Equity General	S&P/ASX 200	36.22	44.82	67.16
Australian Equity Mid- and Small-Cap	S&P/ASX Mid-Small Index	27.27	29.90	28.87
International Equity General	S&P Developed Ex-Australia LargeMidCap	72.27	86.70	88.24
Australian Bonds	S&P/ASX Australian Fixed Interest 0+ Index	85.71	86.00	87.04
Australian Equity A-REIT	S&P/ASX 200 A-REIT	84.06	89.04	85.00

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2015. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 2: Survivorship and Style Consistency of Funds

Fund Category	No. of Funds at Start	Survivorship (%)
One-Year		
Australian Equity General	319	98.12
Australian Equity Mid- and Small-Cap	99	96.97
International Equity General	221	93.21
Australian Bonds	57	92.98
Australian Equity A-REIT	70	100.00
Three-Year		
Australian Equity General	307	93.81
Australian Equity Mid- and Small-Cap	97	91.75
International Equity General	205	86.34
Australian Bonds	50	86.00
Australian Equity A-REIT	74	87.84
Five-Year		
Australian Equity General	346	78.61
Australian Equity Mid- and Small-Cap	97	84.54
International Equity General	222	74.32
Australian Bonds	54	77.78
Australian Equity A-REIT	81	80.25

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2015. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 3: Average Fund Performance (Equal-Weighted)			
Index/Peer Group	One-Year (%)	Three-Year Annualized (%)	Five-Year Annualized (%)
S&P/ASX 200	2.56	9.19	6.97
Australian Equity General	3.86	9.91	7.15
S&P/ASX Mid-Small Index	10.75	8.20	2.48
Australian Equity Mid- and Small-Cap	18.48	12.02	7.94
S&P Developed Ex-Australia LargeMidCap	12.3	24.19	15.90
International Equity General	10.02	20.82	13.27
S&P/ASX Australian Fixed Interest Index	2.59	4.66	6.57
Australian Bonds	1.83	4.01	5.88
S&P/ASX 200 A-REIT	14.32	15.87	15.30
Australian Equity A-REIT	12.83	14.65	14.41

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2015. All returns in AUD. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 4: Average Fund Performance (Asset-Weighted)			
Index/Peer Group	One-Year (%)	Three-Year Annualized (%)	Five-Year Annualized (%)
S&P/ASX 200	2.56	9.19	6.97
Australian Equity General	4.26	10.50	7.73
S&P/ASX Mid-Small Index	10.75	8.20	2.48
Australian Equity Mid- and Small-Cap	17.60	12.54	7.84
S&P Developed Ex-Australia LargeMidCap	12.26	24.19	15.90
International Equity General	10.11	21.49	13.76
S&P/ASX Australian Fixed Interest Index	2.59	4.66	6.57
Australian Bonds	2.17	4.29	6.13
S&P/ASX 200 A-REIT	14.32	15.87	15.30
Australian Equity A-REIT	13.44	15.14	14.66

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2015. All returns in AUD. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 5: Quartile Breakpoints of Fund Performance			
Fund Category	Third Quartile	Second Quartile	First Quartile
One-Year			
Australian Equity General	1.67	3.68	5.87
Australian Equity Mid- and Small-Cap	10.86	16.63	24.61
International Equity General	7.83	10.46	12.62
Australian Bonds	1.47	1.93	2.31
Australian Equity A-REIT	11.91	12.90	14.00
Three-Year			
Australian Equity General	8.05	9.51	11.24
Australian Equity Mid- and Small-Cap	8.49	12.64	16.31
International Equity General	19.00	20.96	22.93
Australian Bonds	3.48	4.02	4.53
Australian Equity A-REIT	13.71	14.70	15.45
Five-Year			
Australian Equity General	5.62	6.69	8.13
Australian Equity Mid- and Small-Cap	4.39	6.95	11.64
International Equity General	11.75	13.26	15.05
Australian Bonds	5.29	5.93	6.43
Australian Equity A-REIT	13.45	14.48	15.09

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2015. All returns in AUD. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

APPENDIX A: GLOSSARY

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 includes 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 Australian large-cap equity, Australian mid/small-cap equity, international equity, Australian bonds, and Australian REIT categories.

The Morningstar classification system produces narrow, style-based classifications for Australian equity funds. S&P Dow Jones Indices have 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 as shown in Exhibit 1.

Exhibit 1: Australian Equity Funds: SPIVA and Morningstar Categories	
SPIVA Category	Morningstar Category
Australian Equity General	Equity Region Australia Large Value
	Equity Region Australia Large Growth
	Equity Region Australia Large Blend
Australian Equity Mid- and Small-Cap	Equity Region Australia Mid/Small Value
	Equity Region Australia Mid/Small Growth
	Equity Region Australia Mid/Small Blend
International Equity General	Equity Region World Large Value
	Equity Region World Large Growth
	Equity Region World Large Blend
Australian Bonds	Australian Bonds
Australian Equity A-REIT	Equity Sector 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 2. 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 while active fund returns are calculated after expenses, they do not include loads and entry fees.

The benchmarks chosen are the most commonly adopted benchmarks for funds that fall into the respective fund peer groups. In some instances, a fund may not adopt the benchmark stipulated below. However, a vast majority do set their performance hurdle based on the assigned benchmarks in this report, ensuring that the study is robust and fair.

Exhibit 2: 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 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 the index outperformance percentage.

Survivorship (%)

This measure represents the percentage of funds in existence at the beginning of the time period that is still active at the end of the time period.

Equal-Weighted Fund Performance

Equal-weighted returns for a particular style category are determined by calculating a simple average return of all active funds in that category in a particular month.

Asset-Weighted Fund Performance

Asset-weighted returns for a particular style category are determined by calculating a weighted average return of all funds in that category in a particular month, with each fund's return weighted by its total net assets. Asset-weighted returns are a better indicator of fund category performance because they more accurately reflect the returns of the total money invested in that particular style category.

Quartiles 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, 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 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. These reports remove this bias by (a) using 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, (b) explicitly showing the survivorship rate in each category, and (c) constructing 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 Index

The S&P/ASX Mid-Small Index 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 family 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 3).

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