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# SPIVA<sup>®</sup> Japan 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 SPIVA U.S. Scorecard in 2002. Over the years, we have built on our experience publishing the report by expanding scorecard coverage into Australia, Canada, Europe, India, South Africa, Latin America, and Japan. While this report will not end the debate on active versus passive investing in Japan, we hope to make a meaningful contribution by examining market segments in which one strategy works better than the other.
- The SPIVA Japan Scorecard reports on the performance of actively managed Japanese mutual funds against their respective benchmark indices over 1-, 3-, 5-, and 10-year investment horizons. In this scorecard, we evaluated returns of more than 764 Japanese large- and mid/small-cap equity funds, along with more than 583 international equity funds investing in global, international, and emerging markets, as well as U.S. equities.
- **Domestic Equity Funds:** The [S&P/TOPIX 150](#) and the S&P Japan MidSmallCap recorded strong gains of 31.5 % and 31.8%, respectively, in the one-year period ending June 2017. On average, Japanese large- and mid/small-cap equity funds lagged their respective benchmarks by small margins over the same period, with 71% and 58% of funds delivering smaller returns, respectively. On a risk-adjusted basis, only 49% of large-cap equity funds underperformed the S&P/TOPIX 150, but 78% of mid/small-cap funds lagged the S&P Japan MidSmallCap.

Over the 10-year horizon, more than 63% of large-cap and 65% of mid/small-cap funds failed to beat their respective benchmarks on an absolute and risk-adjusted basis. Over the same period, 31% of large-cap and 39% of mid/small-cap funds were merged or liquidated. The equal-weighted return exceeded the asset-weighted return of the mid/small-cap funds consistently over the 1-, 3-, 5-, and 10-year periods, indicating that smaller funds have performed better than larger funds in this category.

- **Foreign Equity Funds:** The one-year period ending June 2017 was fruitful for most foreign equity fund investors, as all the foreign equity fund categories recorded average gains of more than 25% over this period. However, the majority of foreign equity funds failed to beat their respective benchmarks for the period. Emerging market fund performance was the most disappointing; 74% underperformed the [S&P Emerging BMI](#) and all of them recorded lower risk-adjusted returns over the same period. On average, funds in this category lagged their benchmarks by 5.4%.

Over the 10-year period, the international equity fund category had the smallest percentage of funds (less than 3%) that managed to survive and outperform the benchmark, the S&P Global 1200 Ex Japan, on an absolute and risk-adjusted basis. However, their rate of being merged and liquidated was the lowest across all fund categories for the 10-year period. In contrast, U.S. equity funds had the lowest survivorship rate (58%) in the 10-year period among the equity fund categories. U.S. equity funds recorded the worst benchmark-relative return over the same period. Their average return lagged the [S&P 500](#) by 3.3% and 4.7% per year on an equal- and asset-weighted basis, respectively.

## A UNIQUE SCORECARD FOR THE ACTIVE VERSUS PASSIVE DEBATE

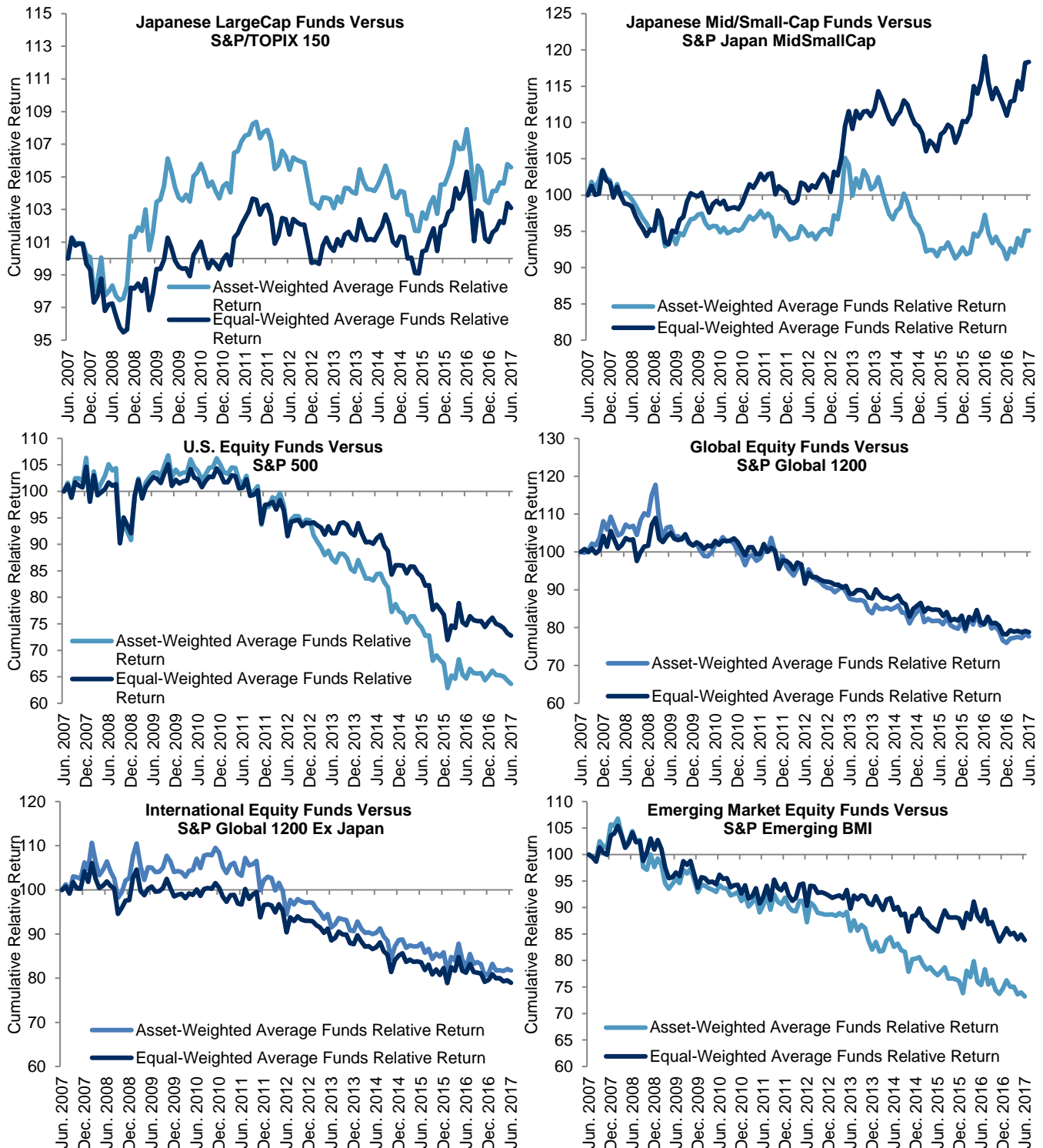
There is nothing novel about the index versus active debate. It has been a contentious subject for decades, and there are few strong believers on both sides, with the vast majority of market participants falling somewhere in between. Since its first publication 15 years ago, the SPIVA Scorecard has served 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 far 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 Japan 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 a JPY 10 billion fund affecting the average in the same manner as the returns of a JPY 10 million fund. However, the SPIVA Japan 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.

*Please note that neither S&P Dow Jones Indices, nor any of its affiliates make any assurance or provide any investment recommendation on the appropriateness of investing in either index or active investing. S&P Dow Jones Indices does not sponsor, endorse, sell, or promote 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. The SPIVA Japan Scorecard simply provides semi-annual statistics according to the SPIVA methodology and a brief analysis of those statistics. Further, S&P Dow Jones Indices does advise that anyone reading this report also read the SPIVA methodology in the report in order to understand how the data was derived.*

### CUMULATIVE AVERAGE FUND RETURN RELATIVE TO BENCHMARK



Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2017. All returns in AUD. Charts are provided for illustrative purposes. Past performance is no guarantee of future results.

## REPORTS

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

FUND CATEGORY	COMPARISON INDEX	ONE-YEAR (%)	THREE-YEAR (%)	FIVE-YEAR (%)	TEN-YEAR (%)
Japanese Large-Cap Funds	S&P/TOPIX 150	70.89	52.42	60.06	63.04
Japanese Mid/Small-Cap Funds	S&P Japan MidSmallCap	58.44	45.89	46.00	65.16
All Japanese Equity Funds	S&P Japan 500	69.52	55.88	64.64	67.09
U.S. Equity Funds	S&P 500	65.66	94.44	87.50	87.50
Global Equity Funds	S&P Global 1200	70.95	88.08	87.14	92.00
International Equity Funds	S&P Global 1200 Ex Japan	61.82	92.16	88.46	97.83
Emerging Equity Funds	S&P Emerging BMI	74.67	89.61	86.84	90.32

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2017. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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

FUND CATEGORY	COMPARISON INDEX	ONE-YEAR (%)	THREE-YEAR (%)	FIVE-YEAR (%)	TEN-YEAR (%)
Japanese Large-Cap Funds	S&P/TOPIX 150	49.06	44.85	51.52	63.66
Japanese Mid/Small-Cap Funds	S&P Japan MidSmallCap	77.92	58.90	66.67	65.16
All Japanese Equity Funds	S&P Japan 500	75.43	51.05	60.88	66.88
U.S. Equity Funds	S&P 500	75.76	95.83	93.75	87.50
Global Equity Funds	S&P Global 1200	67.60	88.08	90.71	90.67
International Equity Funds	S&P Global 1200 Ex Japan	65.45	94.12	90.38	97.83
Emerging Equity Funds	S&P Emerging BMI	100.00	90.91	88.16	90.32

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2017. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 2: Survivorship of Funds</b>		
<b>FUND CATEGORY</b>	<b>NO. OF FUNDS AT START</b>	<b>SURVIVORSHIP (%)</b>
<b>ONE-YEAR</b>		
Japanese Large-Cap Funds	371	96.50
Japanese Mid/Small-Cap Funds	154	93.51
All Japanese Equity Funds	525	95.62
U.S. Equity Funds	99	97.98
Global Equity Funds	179	93.30
International Equity Funds	55	98.18
Emerging Equity Funds	75	97.33
<b>THREE-YEAR</b>		
Japanese Large-Cap Funds	330	88.18
Japanese Mid/Small-Cap Funds	146	86.99
All Japanese Equity Funds	476	87.82
U.S. Equity Funds	72	86.11
Global Equity Funds	151	81.46
International Equity Funds	51	92.16
Emerging Equity Funds	77	76.62
<b>FIVE-YEAR</b>		
Japanese Large-Cap Funds	328	78.66
Japanese Mid/Small-Cap Funds	150	73.33
All Japanese Equity Funds	478	76.99
U.S. Equity Funds	32	71.88
Global Equity Funds	140	70.71
International Equity Funds	52	88.46
Emerging Equity Funds	76	65.79
<b>TEN-YEAR</b>		
Japanese Large-Cap Funds	322	69.25
Japanese Mid/Small-Cap Funds	155	60.65
All Japanese Equity Funds	477	66.46
U.S. Equity Funds	24	58.33
Global Equity Funds	75	64.00
International Equity Funds	46	76.09
Emerging Equity Funds	31	61.29

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2017. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 3: Average Fund Performance (Equal-Weighted)</b>				
<b>INDEX/PEER GROUP</b>	<b>ONE-YEAR (%)</b>	<b>THREE-YEAR ANNUALIZED (%)</b>	<b>FIVE-YEAR ANNUALIZED (%)</b>	<b>TEN-YEAR ANNUALIZED (%)</b>
S&P/TOPIX 150	31.49	9.51	17.48	0.12
Japanese Large-Cap Funds	28.73	10.06	17.85	0.43
S&P Japan MidSmallCap	31.79	13.06	20.46	3.150
Japanese Mid/Small-Cap Funds	30.90	15.54	24.43	4.900
S&P Japan 500	31.87	10.32	18.26	0.82
All Japanese Equity Funds	29.34	11.67	19.83	1.82
S&P 500	29.12	13.46	22.75	6.17
U.S. Equity Funds	25.79	5.25	17.25	2.85
S&P Global 1200	30.74	9.68	19.79	3.62
Global Equity Funds	27.29	5.74	16.23	1.17
S&P Global 1200 Ex Japan	30.67	9.69	19.97	3.91
International Equity Funds	27.02	6.21	16.78	1.49
S&P Emerging BMI	34.01	5.28	12.27	1.69
Emerging Equity Funds	28.57	2.97	10.62	-0.08

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2017. All returns in JPY. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 4: Average Fund Performance (Asset-Weighted)</b>				
<b>INDEX/PEER GROUP</b>	<b>ONE-YEAR (%)</b>	<b>THREE-YEAR ANNUALIZED (%)</b>	<b>FIVE-YEAR ANNUALIZED (%)</b>	<b>TEN-YEAR ANNUALIZED (%)</b>
S&P/TOPIX 150	31.49	9.51	17.48	0.12
Japanese Large-Cap Funds	28.65	9.88	17.51	0.67
S&P Japan MidSmallCap	31.79	13.06	20.46	3.15
Japanese Mid/Small-Cap Funds	28.84	12.00	20.65	2.63
S&P Japan 500	31.87	10.32	18.26	0.82
All Japanese Equity Funds	28.79	10.43	18.24	1.11
S&P 500	29.12	13.46	22.75	6.17
U.S. Equity Funds	27.10	3.31	13.98	1.49
S&P Global 1200	30.74	9.68	19.79	3.62
Global Equity Funds	25.46	6.33	15.71	1.03
S&P Global 1200 Ex Japan	30.67	9.69	19.97	3.91
International Equity Funds	29.67	6.12	16.56	1.84
S&P Emerging BMI	34.01	5.28	12.27	1.69
Emerging Equity Funds	30.19	1.15	8.41	-1.43

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2017. All returns in JPY. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 5: Quartile Breakpoints of Fund Performance</b>			
<b>FUND CATEGORY</b>	<b>THIRD QUARTILE</b>	<b>SECOND QUARTILE</b>	<b>FIRST QUARTILE</b>
<b>ONE-YEAR</b>			
Japanese Large-Cap Funds	24.87	28.34	32.45
Japanese Mid/Small-Cap Funds	24.86	30.40	38.68
All Japanese Equity Funds	24.87	28.92	33.75
U.S. Equity Funds	20.68	26.07	30.66
Global Equity Funds	21.36	26.93	31.81
International Equity Funds	21.99	27.99	32.64
Emerging Equity Funds	23.69	27.92	34.06
<b>THREE-YEAR</b>			
Japanese Large-Cap Funds	8.53	9.62	11.09
Japanese Mid/Small-Cap Funds	11.68	14.44	18.99
All Japanese Equity Funds	8.86	10.33	12.85
U.S. Equity Funds	1.44	7.54	9.69
Global Equity Funds	3.66	6.90	8.02
International Equity Funds	4.82	6.58	7.76
Emerging Equity Funds	0.74	3.19	4.38
<b>FIVE-YEAR</b>			
Japanese Large-Cap Funds	16.26	17.49	18.49
Japanese Mid/Small-Cap Funds	20.25	22.94	28.42
All Japanese Equity Funds	16.82	18.05	21.15
U.S. Equity Funds	18.94	20.52	21.63
Global Equity Funds	15.27	17.64	19.26
International Equity Funds	15.38	18.17	19.26
Emerging Equity Funds	9.42	11.03	11.89
<b>TEN-YEAR</b>			
Japanese Large-Cap Funds	-0.76	0.19	1.36
Japanese Mid/Small-Cap Funds	1.65	3.93	7.43
All Japanese Equity Funds	-0.43	0.76	2.59
U.S. Equity Funds	3.73	4.37	5.99
Global Equity Funds	1.28	2.17	2.83
International Equity Funds	1.06	1.66	2.57
Emerging Equity Funds	-0.85	-0.28	0.50

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2017. All returns in JPY. 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 Japan for which month-end data is available during the performance period. The data includes the most comprehensive Japanese 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 Japan Scorecard covers Japanese and international equity categories.



## Japanese Equity Funds

The SPIVA Japan Scorecard covers major capitalization levels including large-, mid-, and small-cap funds. S&P Dow Jones Indices uses the Morningstar fund categories, which determine a fund portfolio’s capitalization assignments.

The Morningstar classification system produces narrow, style-based classifications for Japanese equities 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.

<b>Exhibit 1: Japanese Equity Funds: SPIVA and Morningstar Categories</b>	
<b>SPIVA CATEGORY</b>	<b>MORNINGSTAR CATEGORY</b>
Japanese Large-Cap Funds	Japan Fund Japan Large-Cap Value Equity
	Japan Fund Japan Large-Cap Growth Equity
	Japan Fund Japan Large-Cap Blend Equity
Japanese Mid/Small-Cap Funds	Japan Fund Japan Small/Mid-Cap Value Equity
	Japan Fund Japan Small/Mid-Cap Growth Equity
	Japan Fund Japan Small/Mid-Cap Blend Equity

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

## International Equity Funds

For international equity, the SPIVA Japan Scorecard reports on four major categories (U.S., global, international, and emerging market funds) of interest to global asset allocators.

Morningstar categories have been mapped to SPIVA peer groups in the following manner.

<b>Exhibit 2: International Equity Funds: SPIVA and Morningstar Categories</b>	
<b>SPIVA CATEGORY</b>	<b>MORNINGSTAR CATEGORY</b>
U.S. Equity Funds	Japan Fund North America Equity
Global Equity Funds	Japan Fund World Equity
International Equity Funds	Japan Fund World ex-Japan Equity
Emerging Equity Funds	Japan Fund Emerging Multiple Country/Area Equity

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 Japanese yen. 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.

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 benchmarks stipulated in Exhibit 3. 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.

<b>SPIVA CATEGORY</b>	<b>BENCHMARK INDEX</b>
Japanese Large-Cap Funds	S&P/TOPIX 150
Japanese Mid/Small-Cap Funds	S&P Japan MidSmallCap
All Japanese Equity Funds	S&P Japan 500
U.S. Equity Funds	S&P 500
Global Equity Funds	S&P Global 1200
International Equity Funds	S&P Global 1200 Ex Japan
Emerging Equity Funds	S&P Emerging BMI

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 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, 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/TOPIX 150

The [S&P/TOPIX 150](#) is designed to represent the large-cap universe for Japan. It includes 150 highly liquid securities as leading, blue-chip companies from each of the Global Industry Classification Standard (GICS®) sectors of the Japanese market.

### S&P JAPAN MIDSMALLCAP

The S&P Japan MidSmallCap combines the S&P Japan MidCap and S&P SmallCap indices and comprises the stocks representing the lowest 30% of float-adjusted market cap in Japan. It is a subset of the [S&P Japan BMI](#), comprehensive, rules-based index measuring Japanese stock market performance.

### S&P JAPAN 500

The [S&P Japan 500](#) is designed to represent the Japanese investable market. Index constituents are drawn from eligible companies listed on the Tokyo, Osaka, or JASDAQ exchanges. Data is sourced from the comprehensive Toyo Keizai database. Constituents represent the large-, mid-, and small-cap components of the Japanese equity markets.

## S&P 500

Widely regarded as the best single gauge of the U.S. equities market, this market-capitalization-weighted index includes a representative sample of the top 500 companies in the leading industries of the U.S. economy, and it provides over 80% coverage of U.S. equities.

## S&P GLOBAL 1200

Capturing approximately 70% of the world's capital markets, the [S&P Global 1200](#) is a composite of seven headline indices, many of which are accepted leaders in their regions. It includes the [S&P 500](#) (U.S.), [S&P Europe 350](#) (Europe), [S&P/TOPIX 150](#) (Japan), [S&P/TSX 60](#) (Canada), [S&P/ASX All Australian 50](#) (Australia), [S&P Asia 50](#) (Asia Ex-Japan), and [S&P Latin America 40](#) (Latin America).

## S&P GLOBAL 1200 EX JAPAN

The S&P Global 1200 Ex Japan is a composite of six headline indices, many of which are accepted leaders in their regions. It includes the S&P 500 (U.S.), S&P Europe 350 (Europe), S&P/TSX 60 (Canada), S&P/ASX All Australian 50 (Australia), S&P Asia 50 (Asia Ex-Japan), and S&P Latin America 40 (Latin America).

## S&P EMERGING BMI

The [S&P Emerging BMI](#) captures all companies domiciled in the emerging markets within the [S&P Global BMI](#) with a float-adjusted market capitalization of at least USD 100 million and a minimum annual trading liquidity of USD 50 million.

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