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SPIVA[®] 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 U.S. SPIVA 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 one-, three-, and five-year investment horizons. In this scorecard, we evaluated returns of more than 595 Japanese large-, mid-, and small-cap equity funds; and more than 795 international equity funds investing in global, international, emerging markets, and U.S. equities.
- **Japanese Equity Funds:** The Japanese equity market was volatile in 2015, especially in the second half of the year. The [S&P/TOPIX 150](#), [S&P Japan MidCap 100](#), and [S&P Japan SmallCap 250](#) had annual returns of 10.5%, 13.2%, and 14.6%, respectively. Meanwhile, the Japanese large-, mid-, and small-cap equity funds recorded average profits of 11.8%, 12.9%, and 14.1%, respectively. More than one-half of the Japanese large- and small-cap equity funds achieved better one-, three-, and five-year returns than their respective benchmarks as of year-end 2015, which was a more favorable picture than what was seen in our mid-year 2015 report. However, the majority of Japanese mid-cap equity funds (60.7%) underperformed their respective benchmark over the one-, three-, and five-year periods.

- **International Equity Funds:** International equity markets underperformed the domestic equity market in 2015, with the S&P Global 1200 Ex Japan and [S&P Emerging BMI](#) posting losses of 1.4% and 13.2%, in JPY, respectively. The majority of U.S., global, and international equity funds lagged their respective benchmarks over the one-, three-, and five-year periods and recorded lower-than-benchmark average returns. Emerging market equity funds performed relatively better, with only 46.5%, 59.5%, and 54.6% of funds lagging the S&P Emerging BMI over the one-, three-, and five-year periods.
- **Fund Survivorship:** In 2015, Japanese equity funds had a survivorship rate of 96.8%, while foreign equity funds had a lower rate of 95.6% collectively. Among the foreign equity funds, emerging equity funds had the lowest survivorship rate of just 92.9%. Over the five-year horizon, international and emerging market equity funds had the highest survival rates of 85% and 82.4%, respectively. Japanese mid- and small-cap funds disappeared at the fastest rates, with 26.8% and 26.5% of funds liquidated or merged in the past five years, respectively, which was consistent with the observations in our mid-year 2015 report.
- **Equal-Weighted Average Fund Returns:** Japanese large-cap and emerging market equity funds performed relatively well compared to their respective benchmarks in 2015. The equal-weighted average returns of these two fund categories exceeded their respective benchmark returns by more than 1%. However, the U.S. and global equity funds, on average, underperformed the [S&P 500[®]](#) and [S&P Global 1200](#) by 12.4% and 7.0%, respectively over the one-year period. Over the five-year horizon, all Japanese equity fund categories had higher equal-weighted average fund returns than their respective benchmarks. Japanese small-cap funds had the most pronounced annualized excess return of 3.8%. In contrast, all foreign equity funds had lower equity-weighted average returns than their corresponding benchmarks. U.S. and global equity funds underperformed the S&P 500 and S&P Global 1200 over the five-year period by 10.4% and 7.2% p.a., respectively.
- **Asset-Weighted Average Fund Returns:** Apart from Japanese large-cap funds, asset-weighted average returns for all fund categories lagged their respective benchmarks in 2015. It was apparent that smaller funds performed better than larger funds in most fund peer groups; apart from global and international equity funds, the asset-weighted average returns were lower than their respective equal-weighted average returns over all measured periods in most fund categories. Over the five-year horizon, Japanese small-cap funds had higher asset-weighted returns than their respective benchmarks by small margins, while U.S. and global equity funds lagged their respective benchmarks most significantly, consistent with the results based on equal-weighted average fund returns.

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 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 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.

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REPORTS

Report 1: Percentage of Funds Outperformed by the Index				
Fund Category	Comparison Index	One-Year (%)	Three-Year (%)	Five-Year (%)
Japanese Large-Cap Funds	S&P/TOPIX 150	43.62	44.98	49.83
Japanese Mid-Cap Funds	S&P Japan MidCap 100	60.66	62.50	60.71
Japanese Small-Cap Funds	S&P Japan SmallCap 250	48.15	30.68	48.51
All Japanese Equity Funds	S&P Japan 500	46.36	58.20	59.33
U.S. Equity Funds	S&P 500	87.42	89.09	93.55
Global Equity Funds	S&P Global 1200	70.94	84.78	91.43
International Equity Funds	S&P Global 1200 Ex Japan	65.52	79.66	88.33
Emerging Equity Funds	S&P Emerging BMI	46.45	59.54	54.61

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 Japanese Equity Funds		
Fund Category	No. of Funds at Start	Survivorship (%)
One-Year		
Japanese Large-Cap Funds	298	96.98
Japanese Mid-Cap Funds	61	95.08
Japanese Small-Cap Funds	82	97.56
All Japanese Equity Funds	441	96.83
U.S. Equity Funds	152	97.37
Global Equity Funds	265	96.23
International Equity Funds	58	96.55
Emerging Equity Funds	184	92.93
Three-Year		
Japanese Large-Cap Funds	289	85.47
Japanese Mid-Cap Funds	56	80.36
Japanese Small-Cap Funds	89	85.39
All Japanese Equity Funds	434	84.79
U.S. Equity Funds	56	92.86
Global Equity Funds	230	86.52
International Equity Funds	59	91.53
Emerging Equity Funds	174	83.91
Five-Year		
Japanese Large-Cap Funds	293	80.55
Japanese Mid-Cap Funds	56	73.21
Japanese Small-Cap Funds	102	73.53
All Japanese Equity Funds	451	78.05
U.S. Equity Funds	32	78.13
Global Equity Funds	175	78.86
International Equity Funds	60	85.00
Emerging Equity Funds	142	82.39

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/TOPIX 150	10.49	22.85	12.82
Japanese Large-Cap Funds	11.80	24.03	13.52
S&P Japan MidCap 100	13.20	28.06	15.73
Japanese Mid-Cap Funds	12.97	28.14	16.39
S&P Japan SmallCap 250	14.63	26.99	16.51
Japanese Small-Cap Funds	14.12	31.47	20.33
S&P Japan 500	11.39	24.07	13.64
All Japanese Equity Funds	12.38	26.07	15.33
S&P 500	1.72	28.52	21.80
U.S. Equity Funds	-10.71	15.62	11.36
S&P Global 1200	-0.56	22.30	16.65
Global Equity Funds	-7.58	14.06	9.46
S&P Global 1200 Ex Japan	-1.41	22.25	16.96
International Equity Funds	-4.89	15.94	11.34
S&P Emerging BMI	-13.23	6.13	3.72
Emerging Equity Funds	-12.07	5.75	3.65

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2015. All returns in JPY. 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/TOPIX 150	10.49	22.85	12.82
Japanese Large-Cap Funds	11.36	23.53	13.06
S&P Japan MidCap 100	13.20	28.06	15.73
Japanese Mid-Cap Funds	11.40	25.43	14.35
S&P Japan SmallCap 250	14.63	26.99	16.51
Japanese Small-Cap Funds	8.12	25.64	17.29
S&P Japan 500	11.39	24.07	13.64
All Japanese Equity Funds	10.74	23.75	13.53
S&P 500	1.72	28.52	21.80
U.S. Equity Funds	-15.52	9.77	7.02
S&P Global 1200	-0.56	22.30	16.65
Global Equity Funds	-10.06	14.44	9.86
S&P Global 1200 Ex Japan	-1.41	22.25	16.96
International Equity Funds	-4.63	16.81	11.21
S&P Emerging BMI	-13.23	6.13	3.72
Emerging Equity Funds	-15.03	3.21	1.95

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2015. All returns in JPY. 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			
Japanese Large-Cap Funds	9.11	11.65	13.85
Japanese Mid-Cap Funds	9.06	12.53	14.98
Japanese Small-Cap Funds	7.48	15.41	21.48
All Japanese Equity Funds	9.02	12.02	15.03
U.S. Equity Funds	-17.11	-6.24	-1.13
Global Equity Funds	-14.86	-4.15	1.14
International Equity Funds	-5.75	-2.43	-0.54
Emerging Equity Funds	-15.79	-11.88	-7.50
Three-Year			
Japanese Large-Cap Funds	22.15	23.35	24.95
Japanese Mid-Cap Funds	24.14	27.45	31.72
Japanese Small-Cap Funds	27.46	30.86	36.27
All Japanese Equity Funds	22.54	24.01	28.71
U.S. Equity Funds	13.87	22.74	26.00
Global Equity Funds	8.52	16.65	20.74
International Equity Funds	15.72	20.32	21.83
Emerging Equity Funds	1.36	5.60	11.04
Five-Year			
Japanese Large-Cap Funds	12.30	13.10	14.36
Japanese Mid-Cap Funds	13.65	16.76	19.15
Japanese Small-Cap Funds	15.94	19.26	24.16
All Japanese Equity Funds	12.64	13.73	16.60
U.S. Equity Funds	13.04	17.63	19.31
Global Equity Funds	8.47	12.90	15.63
International Equity Funds	12.53	14.52	15.55
Emerging Equity Funds	1.10	4.36	7.67

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2015. 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.

Japanese Equity Funds: SPIVA and Morningstar Categories	
SPIVA Category	Morningstar Category
Japanese Large-Cap Funds	Japan OE Japan Equity Large-Cap Value
	Japan OE Japan Equity Large-Cap Growth
	Japan OE Japan Equity Large-Cap Blend
Japanese Mid-Cap Funds	Japan OE Japan Equity Mid-Cap Value
	Japan OE Japan Equity Mid-Cap Growth
	Japan OE Japan Equity Mid-Cap Blend
Japanese Small-Cap Funds	Japan OE Japan Equity Small-Cap Value
	Japan OE Japan Equity Small-Cap Growth
	Japan OE Japan Equity Small-Cap Blend

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.

International Equity Funds: SPIVA and Morningstar Categories	
SPIVA Category	Morningstar Category
U.S. Equity Funds	Japan OE U.S. Equity
Global Equity Funds	Japan OE World Equity
International Equity Funds	Japan OE World ex-Japan Equity
Emerging Equity Funds	Japan OE Emerging Markets Equity-Diversified

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

Benchmarks

The chosen benchmarks are shown in the table below. 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 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.

SPIVA Categories and Their Benchmarks	
SPIVA Category	Benchmark Index
Japanese Large-Cap Funds	S&P/TOPIX 150
Japanese Mid-Cap Funds	S&P Japan MidCap 100
Japanese Small-Cap Funds	S&P Japan SmallCap 250
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 MidCap 100

The [S&P Japan MidCap100](#) is designed to represent the mid-cap universe for Japan. Constituents are drawn from eligible companies listed on the Tokyo, Osaka, or JASDAQ exchanges. Data is sourced from the comprehensive Toyo Keizai database. The index is designed specifically to give investors an index covering the mid-cap segment of the market that is broad enough to provide representation, but liquid enough to ensure investability.

S&P Japan SmallCap 250

The [S&P Japan SmallCap 250](#) is designed to represent the small-cap segment of Japan equities. Constituents are drawn from eligible companies listed on the Tokyo, Osaka, or JASDAQ exchanges. Data is sourced from the comprehensive Toyo Keizai database. The index is designed to cover the small-cap segment of the market in a way that is broad enough to provide representation, but liquid enough to ensure investability.

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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