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# SPIVA® India Scorecard

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

# Summary

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

The SPIVA India Scorecard compares the performance of actively managed Indian equity and bond mutual funds with their respective benchmark indices over 1-, 3-, 5- and 10-year investment horizons.

# Full-Year 2022 Highlights

In 2022, performance among Indian active managers varied across categories. A majority of Indian Equity Large-Cap funds failed to beat their benchmark, with 88% of actively managed funds underperforming the <u>S&P BSE 100</u>. Indian Composite Bond funds fared the best, with 45% underperforming the <u>S&P BSE India Bond Index</u>.

#### **Exhibit 1: Percent of Underperforming Indian Active Funds**



Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2022. Outperformance is based on equal-weighted fund counts. Index performance based on total return in local country currency. The S&P BSE 400 MidSmallCap Index was launched Nov. 30, 2017. The S&P BSE India Government Bond Index and the S&P BSE India Bond Index were launched March 12, 2014. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

### **Indian Equity Large-Cap Funds**

The S&P BSE 100 gained 6.0% in 2022, and 87.5% of active managers underperformed the benchmark over that period.

- Underperformance rates remained high over three- and five-year periods, at 96.7% and 93.8%, respectively.
- Active managers produced relatively better results over the 10-year period, with the underperformance rate dropping to 67.9%.

#### **Indian ELSS Funds**

- The S&P BSE 200 rose by 5.7% in 2022, and 76.9% of Indian ELSS funds underperformed the index. Fund performance improved over the 10-year period, as 63.9% of funds underperformed the benchmark.
- Indian ELSS funds achieved the second-highest long-term survival rate across all categories in our SPIVA India Scorecard, with 77.8% of them still surviving after 10 years.

## Indian Equity Mid-/Small-Cap Funds

- The benchmark for Indian Equity Mid-/Small-Cap funds, the S&P BSE 400 MidSmallCap Index, rose 2.2% in 2022, and 54.9% of active managers underperformed the index over that period.
- Among all the categories included in the SPIVA India Scorecard, Indian Equity Mid-/Small-Cap funds fared the best by far in the long run, with exactly 50.0% of them beating the S&P BSE 400 MidSmallCap Index over the 10-year period ending December 2022.

### **Indian Government Bond Funds**

- The S&P BSE India Government Bond Index increased 2.8% in 2022. Less than one-third of active managers beat the benchmark in 2022, with an underperformance rate of 68.0%
- Fewer funds were able to outperform as time horizons extended, with underperformance rates over 3-, 5- and 10-year periods reaching 70.8%, 71.1% and 83.0%, respectively.

# **Indian Composite Bond Funds**

For the full-year 2022, the S&P BSE India Bond Index rose 3.0%. The 2022 underperformance of Indian Composite Bond fund managers was the lowest across all categories in the SPIVA India Scorecard, at just 45.4%.

 Over the 10-year period, however, Indian Composite Bond funds displayed the highest underperformance rate across categories, with 98.2% of managers failing to beat the benchmark.

# Market Context

Volatile commodity prices, inflationary pressures and significant weakening of foreign exchange rates against the U.S. dollar created a challenging backdrop for emerging markets around the world in 2022, but Indian markets weathered the storm significantly better than most of their peers. Although India's headline equity and fixed income benchmark indices dropped in H1, they staged a remarkable recovery in the second half of the year, closing 2022 in the black (see Exhibit 2). Tightening lending standards weighed more heavily on smaller firms, with the S&P BSE 400 MidSmallCap Index underperforming the S&P BSE 200 by 4%, the most since 2019.

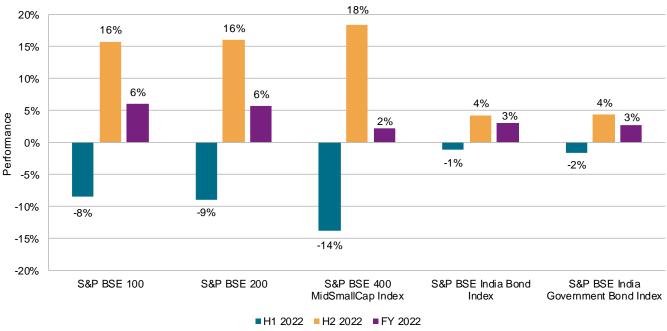


Exhibit 2: Performance of SPIVA India Scorecard Comparison Indices

Source: S&P Dow Jones Indices LLC. Data as of Dec. 31, 2022. Index performance based on total return in local country currency. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Rising interest rates and a turbulent economic and market environment created both major corporate winners and losers in 2022, which made sector allocation particularly important and a potentially lucrative avenue for active managers to add value. Avoiding Information Technology and overweighting Financials would have paid off in particular; the latter alone accounted for two-thirds of the S&P BSE 100's annual return (see Exhibit 3).

4.0% 3.0% 2.0% 1.5% 1.1% 1.1% 1.0% 0.7% 1.0% Contribution 0.2% 0.1% 0.0% 0.0% -0.2% -1.0% -2.0% -3.0% -3.4% -4.0%

Exhibit 3: S&P BSE 100 Contribution by Sector

Source: S&P Dow Jones Indices LLC. Data as of Dec. 31, 2022. Index performance based on total return in local country currency. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Despite the opportunities for outperformance via successful sector picks, Indian Equity Large-Cap funds had the second-highest one-year underperformance rate since the inaugural SPIVA India Scorecard was published in 2013, and active managers dabbling in IPOs might have been among the culprits. In 2022, the <a href="#search-self-block">S&P BSE IPO</a> underperformed the S&P BSE 100 by 33%, its worst relative return in the past decade by far, and historically there has been a strong negative relationship between the performance of IPOs relative to the S&P BSE 100 and the underperformance rate of Indian Equity Large-Cap fund managers (see Exhibit 4).

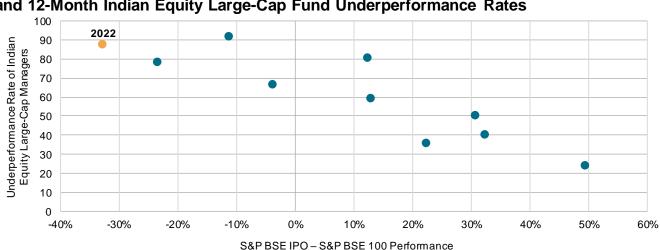


Exhibit 4: Historical 12-Month S&P BSE IPO – S&P BSE 100 Performance Differentials and 12-Month Indian Equity Large-Cap Fund Underperformance Rates

Source: S&P Dow Jones Indices LLC. Data as of Dec. 31, 2022. Index performance based on total return in local country currency. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Exhibit 5 provides additional perspective on the challenges of outperformance for Indian Equity Large-Cap funds by illustrating the impact of skewed stock returns on an active manager's opportunity set. In most periods, the majority of constituents tended to underperform the index return, and 2022 was no exception. Over the course of the year, 52% of stocks in the S&P BSE 100 underperformed the index, while 48% outperformed, and the average excess return for all stocks was -0.31%. A manager randomly selecting a stock could have expected to pick an underperformer slightly over half of the time, trailing the benchmark by less than 1%. Given this landscape, the actual Indian Equity Large-Cap fund underperformance rate of 88% and average fund excess return of -4.0% are worse than random selection would suggest (see Exhibit 1 and Report 3).

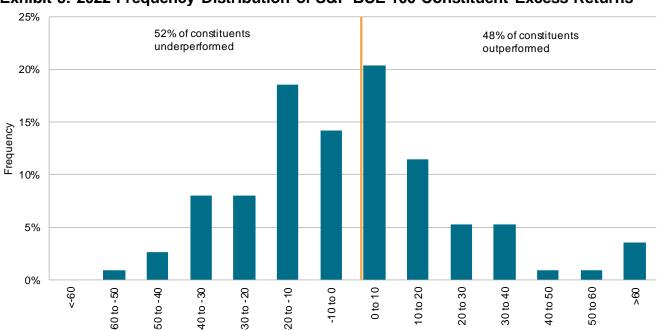
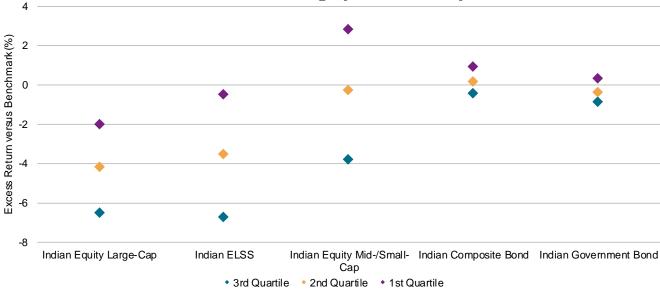


Exhibit 5: 2022 Frequency Distribution of S&P BSE 100 Constituent Excess Returns

Source: S&P Dow Jones Indices LLC, FactSet. Data as of Dec. 31, 2022. Index performance based on total return in local country currency. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Last year also served as a reminder of the significant "fund section risk" that asset allocators were exposed to when choosing among actively managed funds. As Exhibit 6 illustrates, bottom-quartile funds underperformed their respective benchmarks to a greater degree than top-quartile funds outperformed in all categories except Indian Composite Bond funds. This implies that over the period, investors got a more modest reward for picking top-quartile funds than the underperformance they suffered when picking bottom-quartile ones.

Exhibit 6: 2022 Excess Return versus Category Benchmark by Active Fund Quartile



 $Source: S\&P\ Dow\ Jones\ Indices\ LLC.\ Data\ as\ of\ Dec.\ 31,2022.\ Index\ performance\ based\ on\ total\ return\ in\ local\ country\ currency.\ Past\ performance\ is\ no\ guarantee\ of\ future\ results.\ Chart\ is\ provided\ for\ illustrative\ purposes.$ 

# A Unique Scorecard for the Active versus Passive Debate

Since its first publication 20 years ago, the SPIVA Scorecard has served as the defacto 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 India 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: 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 latest quarterly average assets available as of that month from the Association of Mutual Funds in India. 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.
- 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	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)
Indian Equity Large-Cap	S&P BSE 100	87.50	96.67	93.75	67.91
Indian ELSS	S&P BSE 200	76.92	69.77	95.35	63.89
Indian Equity Mid-/Small- Cap	S&P BSE 400 MidSmallCap Index	54.90	58.33	44.83	50.00
Indian Composite Bond	S&P BSE India Bond Index	45.39	71.33	95.77	98.17
Indian Government Bond	S&P BSE India Government Bond Index	68.00	70.83	71.05	82.98

Source: S&P Dow Jones Indices LLC, Morningstar and Association of Mutual Funds in India. Data as of Dec. 31, 2022. Returns are shown in INR. The S&P BSE 400 MidSmallCap Index was launched Nov. 30, 2017. The S&P BSE India Government Bond Index and the S&P BSE India Bond Index were launched March 12, 2014. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

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

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Fund Category	Comparison Index	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)
Indian Equity Large-Cap	S&P BSE 100	90.63	83.33	82.81	66.42
Indian ELSS	S&P BSE 200	76.92	67.44	90.70	69.44
Indian Equity Mid-/Small- Cap	S&P BSE 400 MidSmallCap Index	52.94	41.67	34.48	35.00
Indian Composite Bond	S&P BSE India Bond Index	26.95	54.55	66.20	73.39
Indian Government Bond	S&P BSE India Government Bond Index	40.00	87.50	97.37	95.74

Source: S&P Dow Jones Indices LLC, Morningstar and Association of Mutual Funds in India. Data as of Dec. 31, 2022. Returns are shown in INR. The S&P BSE 400 MidSmallCap Index was launched Nov. 30, 2017. The S&P BSE India Government Bond Index and the S&P BSE India Bond Index were launched March 12, 2014. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Results shown for all time horizons over which the comparison index total return was positive.

**Report 2: Survivorship of Funds** 

Fund Category	Number of Funds at Start	Survivorship (%)
1-Year		
Indian Composite Bond	141	93.62
Indian ELSS	39	97.44
Indian Equity Large-Cap	32	90.63
Indian Equity Mid-/Small-Cap	51	94.12
Indian Government Bond	25	96.00
3-Year		
Indian Composite Bond	143	86.71
Indian ELSS	43	88.37
Indian Equity Large-Cap	30	86.67
Indian Equity Mid-/Small-Cap	48	87.50
Indian Government Bond	24	95.83
5-Year		
Indian Composite Bond	142	79.58
Indian ELSS	43	81.40
Indian Equity Large-Cap	64	89.06
Indian Equity Mid-/Small-Cap	58	91.38
Indian Government Bond	38	63.16
10-Year		
Indian Composite Bond	109	65.14
Indian ELSS	36	77.78
Indian Equity Large-Cap	134	67.16
Indian Equity Mid-/Small-Cap	60	78.33
Indian Government Bond	47	44.68

Source: S&P Dow Jones Indices LLC, Morningstar and Association of Mutual Funds in India. Data as of Dec. 31, 2022. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3: Average Fund Performance (Equal-Weighted)

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Index/Fund Category	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)
S&P BSE 100	6.03	16.17	12.28	13.46
Indian Equity Large-Cap	2.01	13.78	9.79	12.84
S&P BSE 200	5.67	17.17	12.35	13.99
Indian ELSS	2.20	16.27	9.83	14.51
S&P BSE 400 MidSmallCap Index	2.15	25.26	9.77	15.67
Indian Equity Mid-/Small-Cap	1.62	26.29	12.26	17.98
S&P BSE IndiaBondIndex	3.03	6.18	7.42	8.20
Indian Composite Bond	4.36	5.48	5.14	6.22
S&P BSE India Government Bond Index	2.75	5.98	7.38	8.14
Indian Government Bond	2.05	5.04	6.07	6.68

Source: S&P Dow Jones Indices LLC, Morningstar and Association of Mutual Funds in India. Data as of Dec. 31, 2022. Returns are shown in INR. The S&P BSE 400 MidSmallCap Index was launched Nov. 30, 2017. The S&P BSE India Government Bond Index and the S&P BSE India Bond Index were launched March 12, 2014. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Report 4: Average Fund Performance (Asset-Weighted)

Index/Fund Category	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)
S&P BSE 100	6.03	16.17	12.28	13.46
Indian Equity Large-Cap	3.00	14.25	9.70	12.90
S&P BSE 200	5.67	17.17	12.35	13.99
Indian ELSS	0.06	13.65	8.01	13.23
S&P BSE 400 MidSmallCap Index	2.15	25.26	9.77	15.67
Indian Equity Mid-/Small-Cap	3.51	23.88	10.72	16.81
S&P BSE India Bond Index	3.03	6.18	7.42	8.20
Indian Composite Bond	3.87	5.69	6.09	7.21
S&P BSE India Government Bond Index	2.75	5.98	7.38	8.14
Indian Government Bond	2.99	6.00	7.22	7.91

Source: S&P Dow Jones Indices LLC, Morningstar and Association of Mutual Funds in India. Data as of Dec. 31, 2022. Returns are shown in INR. The S&P BSE 400 MidSmallCap Index was launched Nov. 30, 2017. The S&P BSE India Government Bond Index and the S&P BSE India Bond Index were launched March 12, 2014. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

**Report 5: Quartile Breakpoints of Fund Performance** 

Fund Category	Third Quartile	Second Quartile	First Quartile
1-Year			
Indian Equity Large-Cap	-0.48	1.89	4.05
Indian ELSS	-1.02	2.14	5.22
Indian Equity Mid-/Small-Cap	-1.63	1.89	4.96
Indian Composite Bond	2.58	3.20	3.99
Indian Government Bond	1.89	2.39	3.07
3-Year			
Indian Equity Large-Cap	12.65	13.88	14.75
Indian ELSS	12.59	15.42	17.88
Indian Equity Mid-/Small-Cap	21.18	24.93	28.67
Indian Composite Bond	4.75	5.74	6.36
Indian Government Bond	4.59	5.34	6.28
5-Year			
Indian Equity Large-Cap	9.01	10.38	11.37
Indian ELSS	7.75	9.27	11.43
Indian Equity Mid-/Small-Cap	8.39	10.15	11.86
Indian Composite Bond	5.49	6.28	6.87
Indian Government Bond	5.93	7.14	8.03
10-Year			
Indian Equity Large-Cap	12.19	13.40	14.37
Indian ELSS	12.68	13.17	14.83
Indian Equity Mid-/Small-Cap	14.91	16.22	17.90
Indian Composite Bond	6.75	7.21	7.55
Indian Government Bond	7.10	7.67	8.27

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2022. Returns shown are annualized for periods greater than one year. Index performance based on total return in local country currency. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

# Appendix A: Glossary

#### Data

Data from Morningstar are obtained for all managed funds domiciled in India for which monthend data are available during the performance period. The data include the most comprehensive Indian fund data on active and finalized (merged or liquidated) funds over the chosen period. Quarterly average assets for all managed funds are sourced from the Association of Mutual Funds in India for every quarter-end during the performance period.

## SPIVA Styles and Morningstar Fund Classifications

Funds are classified based on the Morningstar fund classification system, and the SPIVA India Scorecard covers Indian Equity Large-Cap, Indian ELSS, Indian Equity Mid-/Small-Cap, Indian Government Bond and Indian Composite Bond categories. The Morningstar classification system produces narrow, style-based classifications for Indian 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 that value and growth style segments are not consistently discernible over the previous five-year period. Morningstar categories have been mapped to SPIVA peer groups in the following manner.

Exhibit 7a: Indian Funds – SPIVA and Current Morningstar Categories

SPIVA Category	Morningstar Category
Indian Equity Large-Cap	India Fund Large-Cap
Indian ELSS	India Fund ELSS (Tax Savings)
Indian Equity Mid /Small Con	India Fund Mid-Cap
Indian Equity Mid-/Small-Cap	India Fund Small-Cap
Indian Covernment Band	India Fund Government Bond
Indian Government Bond	India Fund 10-Year Government Bond
	India Fund Short Duration
	India Fund Medium Duration
	India Fund Medium to Long Duration
Indian Composite Band	India Fund Long Duration
Indian Composite Bond	India Fund Dynamic Bond
	India Fund Banking & PSU
	India Fund Corporate Bond
	India Fund Credit Risk

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

Exhibit 7b: Indian Funds - SPIVA and Historical Morningstar Categories

SPIVA Category	Morningstar Category
	India CE Large Cap
Indian Equity Large-Cap	India OE Large Cap
	India OE Large-Cap
Indian ELSS	India OE ELSS (Tax Saving)
	India CE Small/Mid Cap
ladian Favita Mid /Carall Can	India OE Small/Mid Cap
Indian Equity Mid-/Small-Cap	India OE Small/Mid-Cap
	India Fund Small/Mid-Cap
	India OE Long Government
	India OE Long-Term Government Bond
	India OE Intermediate Government Bond
	India OE Intermediate Government
Indian Government Bond	India OE Short Government
	India OE Short-Term Government Bond
	India Fund Long-Term Government Bond
	India Fund Intermediate Government Bond
	India Fund Short-Term Government Bond
	India OE Intermediate Bond
	India OE Short-term Bond
	India OE Long-Term Bond
	India OE Fixed Maturity Multisector Bond
	India OE Fixed Maturity Short-term Bond
la dian Commonite Dan d	India OE FMP Multisector Bond
Indian Composite Bond	India OE Multisector Bond
	India OE Corporate Credit
	India Fund Long-Term Bond
	India Fund Intermediate Bond
	India Fund Short-Term Bond
	India Fund Corporate Credit

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

#### **Benchmarks**

The chosen benchmarks are shown in Exhibit 8. All index returns are total returns (i.e., include dividend reinvestment) in Indian rupees. 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
Indian Equity Large-Cap	S&P BSE 100
Indian ELSS	S&P BSE 200
Indian Equity Mid-/Small-Cap <sup>1</sup>	S&P BSE 400 MidSmallCap Index
Indian Government Bond	S&P BSE India Government Bond Index
Indian Composite Bond	S&P BSE India Bond Index

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

SPIVA 14

The benchmark for the SPIVA category India Equity Mid-/Small-Cap in SPIVA India scorecards prior to the SPIVA India Mid-Year 2018 scorecard was the <a href="S&P BSE MidCap">S&P BSE MidCap</a>.

# Appendix B: Glossary – Reports

## Percentage of Funds Outperformed by the Index

We use funds with returns available for the entire period as the denominator. We determine the count of funds that have survived and beat the index and then report the index outperformance percentage.

# Survivorship (%)

The survivorship metric 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 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 reflect the returns of the total money invested in that particular style category with more accuracy.

## Quartile Breakpoints

The p<sup>th</sup> 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 border is the 75<sup>th</sup> percentile, which is the value separating the elements of a population into the lower 75% and the upper 25%. The second quartile border is the 50<sup>th</sup> percentile, and the third quartile border is the 25<sup>th</sup> percentile. For fund category quartiles in a particular time period, the data used are the return of the largest share class of the fund net of fees, excluding loads.

## Survivorship Bias

Some funds 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 to show explicitly 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 reference against which fund performance can be measured.

#### **S&PBSE 100**

The S&P BSE 100 is designed to measure the performance of the top 100 companies in India based on size and liquidity. It is a highly liquid and investable index that is designed to address investment managers' needs to benchmark against a large-cap equity portfolio.

#### **S&PBSE 200**

The S&P BSE 200 is designed to represent the top 200 large, liquid, well-established, and financially sound companies listed at BSE Ltd. across sectors.

#### S&P BSE 400 MidSmallCap Index

The S&P BSE 400 MidSmallCap Index is designed to track the performance of the 400 companies within the S&P BSE 500 that are not part of S&P BSE 100.

#### S&P BSE India Bond Index

The S&P BSE India Bond Index is designed to track the performance of local-currencydenominated government and corporate bonds from India.

#### S&P BSE India Government Bond Index

The S&P BSE India Government Bond Index is designed to track the performance of local-currency-denominated government bonds from India.

# About Asia Index Private Limited

Asia Index Pvt. Ltd is a 50-50 partnership between S&P Dow Jones Indices LLC, the world's largest provider of financial market indices, and BSE Ltd, Asia's oldest stock exchange and home to the iconic SENSEX index -a leading indicator of Indian equity market performance. Asia Index Pvt. Ltd, which combines the benchmarks, market intelligence, and insights of both parent companies, each established more than 115 years ago, aims to provide a full array of indices enabling global and domestic investors to participate in South Asia's vibrant economies. The Company is best known for calculating, publishing, and maintaining a diverse family of Asian indices under the umbrella brand, S&P BSE Indices. To learn more about our company, please visit www.asiaindex.co.in.

# Performance Disclosure/Back-Tested Data

The S&P BSE 400 MidSmallCap Index was launched November 30, 2017. The S&P BSE India Government Bond Index and the S&P BSE India Bond Index were launched March 12, 2014. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance, and is based on the index methodology in effect on the index launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Complete index methodology details are available at <a href="https://www.spglobal.com/spdii">www.spglobal.com/spdii</a>. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

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

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public webs ite or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

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