

SPIVA[®] India Scorecard

Contributors

Akash Jain

Associate Director
Global Research & Design
akash.jain@spglobal.com

Arpit Gupta

Senior Analyst
Global Research & Design
arpit.gupta1@spglobal.com

[Experience the active vs. passive debate on a global scale.](#)

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 S&P Indices Versus Active Funds (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, Japan, Latin America, and South Africa.
- The SPIVA India Scorecard compares the performance of actively managed Indian mutual funds with their respective benchmark indices over 1-, 3-, 5-, and 10-year investment horizons. In this scorecard, we studied the performance of three categories of actively managed equity funds and two categories of actively managed bond funds over the 1-, 3-, 5-, and 10-year periods ending in June 2020.
- A volatile H1 2020 saw the [S&P BSE 100](#), the benchmark for large-cap funds in India, ending in the red (down 14.39%). Conversely, investors that tactically shifted asset allocations to Indian fixed income categories at the start of 2020 may have endured lower drawdowns, with the [S&P BSE India Government Bond Index](#) ending in the black (up 7.78%) in the same period. The sharp correction in Q1 of calendar year 2020 was followed by a strong rebound in Q2 of calendar year 2020 with the S&P BSE 100 up 20.3%, supported by the economic relief package coupled with easing monetary policy.
- For Indian equity categories in H1 2020, the equal-weighted fund returns were higher than their respective asset-weighted and index returns, suggesting that smaller-sized funds were able to better navigate this volatile period than their larger peers.

Exhibit 1: First Half 2020 Average Fund and Index Performance

FUND CATEGORY	COMPARISON INDEX	INDEX RETURN (%)	AVERAGE FUND RETURN (%)		PERCENTAGE OF FUNDS OUTPERFORMED BY THE INDEX (%)
			EQUAL-WEIGHTED	ASSET-WEIGHTED	
Indian Equity Large-Cap	S&P BSE 100	-14.39	-14.18	-15.31	45.16
Indian ELSS	S&P BSE 200	-13.67	-13.26	-14.88	48.84
Indian Equity Mid-/Small-Cap	S&P BSE 400 MidSmallCap Index	-11.06	-10.44	-12.73	43.14
Indian Government Bond	S&P BSE India Government Bond Index	7.78	7.38	8.52	37.50
Indian Composite Bond	S&P BSE India Bond Index	7.56	2.82	4.86	92.16

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2020. Index performance based on total return in INR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

- **Indian Equity Large-Cap Funds:** Over the one-year period ending in June 2020, the S&P BSE 100 was down 11.54%, with 48.39% of funds underperforming the benchmark. Over H1 2020, 45.16% of the funds underperformed the S&P BSE 100. Over longer horizons, the majority of the actively managed large-cap equity funds in India underperformed the large-cap benchmark, with 67.67% of large-cap funds underperforming over the 10-year period ending in June 2020. Over the same period, Indian large-cap funds witnessed a low survivorship rate of 65.41%. The asset-weighted fund return was 12 bps higher than the equal-weighted fund return over the 10-year period, and the return spread between the first and third quartile breakpoints of fund performance was 2.34% for the same period.
- **Indian ELSS Funds:** Over the one-year period ending in June 2020, the [S&P BSE 200](#) ended in the red, returning -10.49%, with 59.52% of funds underperforming the benchmark. During the volatile first half of 2020, 48.84% of the funds underperformed the benchmark. Over the 3-, 5-, and 10-year periods ending in June 2020, 88.37%, 76.92%, and 52.78% of funds underperformed the benchmark, respectively. Over the 10-year horizon, the return spread between asset-weighted and equal-weighted returns was -62 bps. The return spread between the first and third quartile breakpoints of fund performance was 2.07%.
- **Indian Equity Mid-/Small-Cap Funds:** The benchmark for Indian Equity Mid-/Small-Cap funds, the [S&P BSE 400 MidSmallCap Index](#), was down 11.41% over the one-year period ending in June 2020. Over H1 2020, 43.14% of the funds underperformed the benchmark. Among all the categories evaluated in the SPIVA India Scorecard, the Indian Equity Mid-/Small-Cap category fared the best for active funds, with the majority of them managing to beat the S&P BSE 400 MidSmallCap Index across the different time horizons studied in the report. Over the 10-year period, the survivorship rate was low, at 64.71%. For the same period, the asset-weighted fund return was 53 bps lower than the equal-weighted fund return, and the return spread between the first and third quartile breakpoints of fund performance was 3.57%, which was the highest among the equity categories.
- **Indian Government Bond Funds:** The S&P BSE India Government Bond Index returned 12.33% over the one-year period ending in June 2020. Over the 6-month, and 1-, 3-, 5-, and 10-year periods ending in June 2020, 37.50%, 44.00%, 80.49%, 79.25%, and 85.71% of the actively managed funds in this category lagged the benchmark, respectively. Over the 10-year period ending in June 2020, survivorship rate was 36.73%. For the same period, the asset-weighted fund return was 107 bps higher than the equal-weighted fund return, and the return spread between the first and third quartile breakpoints of fund performance was 1.52%.
- **Indian Composite Bond Funds:** In the 12-month period ending in June 2020, the [S&P BSE India Bond Index](#) closed in the black, with a gain of 12.34%. Across all the observed periods, more than 80% of the funds underperformed the benchmark. Over the 10-year period, survivorship rate was 72.50%. For the same period, the asset-weighted fund return was 118 bps higher than the equal-weighted fund return, and the return spread between the first and third quartile breakpoints of fund performance was 1.80%.

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. The SPIVA India Scorecard provides a semiannual update on the active versus index debate in India. It shows the performance of actively managed Indian mutual funds compared with S&P DJI indices in their respective categories.

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:** Average returns for a fund group are often calculated using only equal weighting, which results in the returns of an INR 10 billion fund affecting the average in the same manner as the returns of an INR 10 million fund. However, the SPIVA India 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.
- **Style Consistency:** SPIVA Scorecards measure consistency for each style category across different time horizons. Style consistency is an important metric, because style drift (the tendency of funds to diverge from their initial investment categorization) can have an impact on asset allocation decisions.
- **Data Cleaning:** SPIVA Scorecards avoid double counting multiple share classes in all count-based calculations, using only the share class with greater quarterly average assets at the start of the measurement period. 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 India Scorecard simply provides semiannual statistics according to the SPIVA methodology and a brief analysis of those statistics. Further, S&P Dow Jones Indices does advise anyone reading this report to also read the SPIVA methodology in the report to understand how the data were derived.

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	48.39	83.08	80.43	67.67
Indian ELSS	S&P BSE 200	59.52	88.37	76.92	52.78
Indian Equity Mid-/Small-Cap	S&P BSE 400 MidSmallCap Index	39.58	40.00	53.33	43.53
Indian Government Bond	S&P BSE India Government Bond Index	44.00	80.49	79.25	85.71
Indian Composite Bond	S&P BSE India Bond Index	82.31	93.57	97.22	100.00

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of June 30, 2020. Returns are shown in INR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

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

FUND CATEGORY	COMPARISON INDEX	1-YEAR (%)	3-YEAR (%)	5-YEAR (%)	10-YEAR (%)
Indian Equity Large-Cap	S&P BSE 100	45.16	80.00	76.09	67.67
Indian ELSS	S&P BSE 200	59.52	88.37	76.92	50.00
Indian Equity Mid-/Small-Cap	S&P BSE 400 MidSmallCap Index	39.58	44.44	46.67	43.53
Indian Government Bond	S&P BSE India Government Bond Index	92.00	87.80	92.45	93.88
Indian Composite Bond	S&P BSE India Bond Index	73.47	66.43	65.28	73.75

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of June 30, 2020. Returns are shown in INR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 2: Survivorship of Indian Equity Funds		
FUND CATEGORY	NO. OF FUNDS AT START	SURVIVORSHIP (%)
1-YEAR		
Indian Equity Large-Cap	31	96.77
Indian ELSS	42	92.86
Indian Equity Mid-/Small-Cap	48	95.83
Indian Government Bond	25	96.00
Indian Composite Bond	147	99.32
3-YEAR		
Indian Equity Large-Cap	65	92.31
Indian ELSS	43	88.37
Indian Equity Mid-/Small-Cap	45	95.56
Indian Government Bond	41	63.41
Indian Composite Bond	140	91.43
5-YEAR		
Indian Equity Large-Cap	92	81.52
Indian ELSS	39	87.18
Indian Equity Mid-/Small-Cap	45	93.33
Indian Government Bond	53	49.06
Indian Composite Bond	144	85.42
10-YEAR		
Indian Equity Large-Cap	133	65.41
Indian ELSS	36	83.33
Indian Equity Mid-/Small-Cap	85	64.71
Indian Government Bond	49	36.73
Indian Composite Bond	80	72.50

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of June 30, 2020. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3: Average Fund Performance (Equal Weighted)

INDEX/PEER GROUP	1-YEAR (%)	3-YEAR ANNUALIZED (%)	5-YEAR ANNUALIZED (%)	10-YEAR ANNUALIZED (%)
S&P BSE 100	-11.54	3.13	5.60	8.13
Indian Equity Large-Cap	-11.21	1.31	4.63	7.98
S&P BSE 200	-10.49	2.89	5.83	8.32
Indian ELSS	-10.91	0.29	4.98	9.22
S&P BSE 400 MidSmallCap Index	-11.41	-4.28	4.36	7.12
Indian Equity Mid-/Small-Cap	-10.35	-2.65	4.69	10.20
S&P BSE India Government Bond Index	12.33	9.09	9.83	9.10
Indian Government Bond	10.87	7.19	8.30	7.60
S&P BSE India Bond Index	12.34	9.01	9.74	9.11
Indian Composite Bond	5.84	4.37	5.88	6.74

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of June 30, 2020. Returns are shown in INR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 4: Average Fund Performance (Asset Weighted)

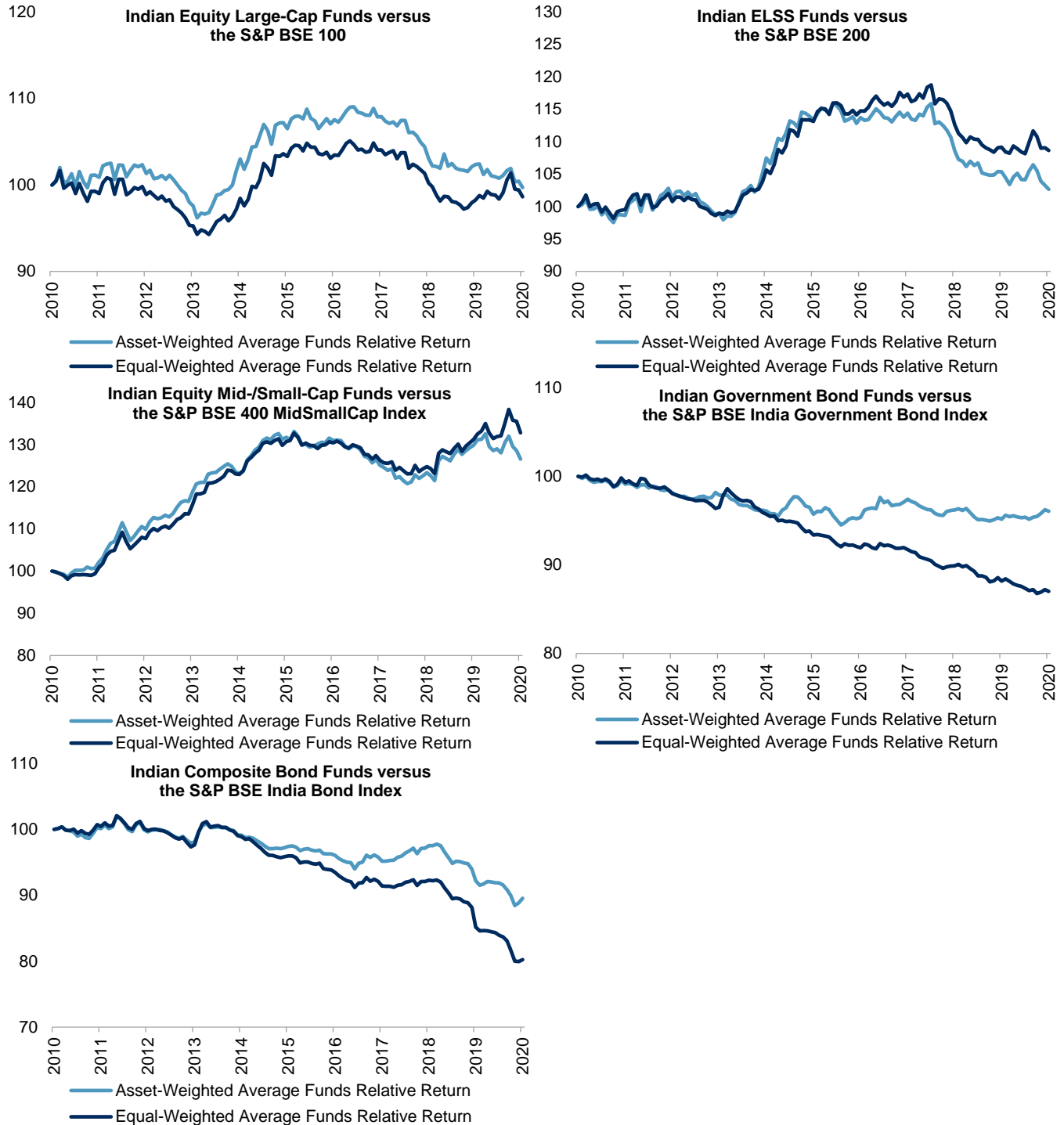
INDEX/PEER GROUP	1-YEAR (%)	3-YEAR ANNUALIZED (%)	5-YEAR ANNUALIZED (%)	10-YEAR ANNUALIZED (%)
S&P BSE 100	-11.54	3.13	5.60	8.13
Indian Equity Large-Cap	-13.84	0.45	4.22	8.09
S&P BSE 200	-10.49	2.89	5.83	8.32
Indian ELSS	-12.78	-0.76	3.75	8.60
S&P BSE 400 MidSmallCap Index	-11.41	-4.28	4.36	7.12
Indian Equity Mid-/Small-Cap	-13.70	-3.91	3.53	9.67
S&P BSE India Government Bond Index	12.33	9.09	9.83	9.10
Indian Government Bond	13.39	8.59	9.91	8.66
S&P BSE India Bond Index	12.34	9.01	9.74	9.11
Indian Composite Bond	9.10	6.82	7.90	7.91

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of June 30, 2020. Returns are shown in INR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 5: Quartile Breakpoints of Fund Performance			
FUND CATEGORY	THIRD QUARTILE	SECOND QUARTILE	FIRST QUARTILE
1-YEAR			
Indian Equity Large-Cap	-12.82	-10.98	-8.15
Indian ELSS	-13.25	-11.86	-6.98
Indian Equity Mid-/Small-Cap	-15.81	-9.34	-5.44
Indian Government Bond	10.78	12.96	14.43
Indian Composite Bond	7.50	10.43	12.12
3-YEAR			
Indian Equity Large-Cap	-0.58	1.66	2.69
Indian ELSS	-2.32	0.20	2.13
Indian Equity Mid-/Small-Cap	-6.55	-2.50	-0.77
Indian Government Bond	7.05	8.21	9.32
Indian Composite Bond	4.37	7.14	8.54
5-YEAR			
Indian Equity Large-Cap	3.15	4.10	5.52
Indian ELSS	2.63	4.49	5.92
Indian Equity Mid-/Small-Cap	2.28	4.38	6.54
Indian Government Bond	8.64	9.39	10.59
Indian Composite Bond	5.86	7.93	8.80
10-YEAR			
Indian Equity Large-Cap	6.77	8.05	9.11
Indian ELSS	7.58	8.66	9.65
Indian Equity Mid-/Small-Cap	8.34	10.14	11.91
Indian Government Bond	8.07	8.74	9.59
Indian Composite Bond	6.35	7.53	8.15

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of June 30, 2020. Returns are shown in INR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

CUMULATIVE AVERAGE FUND RETURN RELATIVE TO BENCHMARK



Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of June 30, 2020. Returns are shown in INR. Past performance is no guarantee of future results. Charts are provided for illustrative purposes and reflect hypothetical historical performance. Please see Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

APPENDIX A: GLOSSARY

Data

Data from Morningstar is obtained for all managed funds domiciled in India for which month-end 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 1a: 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-Cap	India Fund Mid-Cap
	India Fund Small-Cap
Indian Government Bond	India Fund Government Bond
	India Fund 10 yr Government Bond
	India Fund Short Duration
	India Fund Medium Duration
	India Fund Medium to Long Duration
Indian Composite Bond	India Fund Long Duration
	India Fund Dynamic Bond
	India Fund Banking & PSU
	India Fund Corporate Bond
	India Fund Credit Risk

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

Exhibit 1b: Indian Funds – SPIVA and Historical Morningstar Categories	
SPIVA CATEGORY	MORNINGSTAR CATEGORY
Indian Equity Large-Cap	India CE Large Cap
	India OE Large Cap
	India OE Large-Cap
Indian ELSS	India OE ELSS (Tax Saving)
Indian Equity Mid-/Small-Cap	India CE Small/Mid Cap
	India OE Small/Mid Cap
	India OE Small/Mid-Cap
	India Fund Small/Mid-Cap
Indian Government Bond	India OE Long Government
	India OE Long-Term Government Bond
	India OE Intermediate Government Bond
	India OE Intermediate Government
	India OE Short Government
	India OE Short-Term Government Bond
	India Fund Long-Term Government Bond
	India Fund Intermediate Government Bond
Indian Composite 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
	India OE FMP Multisector 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 and 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 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.

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 2. 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
Indian Equity Large-Cap	S&P BSE 100
Indian ELSS	S&P BSE 200
Indian Equity Mid-/Small-Cap ¹	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 and Morningstar. Table is provided for illustrative purposes.

¹ 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 [S&P BSE MidCap](#).

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 beaten 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 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.

Quartile 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 it 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 are 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 BSE 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&P BSE 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 MIDS SMALLCAP 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 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.

S&P BSE INDIA BOND INDEX

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

S&P DJI RESEARCH CONTRIBUTORS		
Sunjiv Mainie, CFA, CQF	Global Head	sunjiv.mainie@spglobal.com
Jake Vukelic	Business Manager	jake.vukelic@spglobal.com
GLOBAL RESEARCH & DESIGN		
AMERICAS		
Gaurav Sinha	Americas Head	gaurav.sinha@spglobal.com
Laura Assis	Analyst	laura.assis@spglobal.com
Cristopher Anguiano, FRM	Analyst	cristopher.anguiano@spglobal.com
Nazerke Bakytzhan, PhD	Senior Analyst	nazerke.bakytzhan@spglobal.com
Smita Chirputkar	Director	smita.chirputkar@spglobal.com
Rachel Du	Senior Analyst	rachel.du@spglobal.com
Bill Hao	Director	wenli.hao@spglobal.com
Qing Li	Director	qing.li@spglobal.com
Berlinda Liu, CFA	Director	berlinda.liu@spglobal.com
Lalit Ponnala, PhD	Director	lalit.ponnala@spglobal.com
Maria Sanchez, CIPM	Associate Director	maria.sanchez@spglobal.com
Hong Xie, CFA	Senior Director	hong.xie@spglobal.com
APAC		
Priscilla Luk	APAC Head	priscilla.luk@spglobal.com
Arpit Gupta	Senior Analyst	arpit.gupta1@spglobal.com
Akash Jain	Associate Director	akash.jain@spglobal.com
Anurag Kumar	Senior Analyst	anurag.kumar@spglobal.com
Xiaoya Qu	Senior Analyst	xiaoya.qu@spglobal.com
Yan Sun	Senior Analyst	yan.sun@spglobal.com
Tim Wang	Senior Analyst	tim.wang@spglobal.com
Liyu Zeng, CFA	Director	liyu.zeng@spglobal.com
EMEA		
Andrew Innes	EMEA Head	andrew.innes@spglobal.com
Alberto Allegrucci, PhD	Senior Analyst	alberto.allegrucci@spglobal.com
Leonardo Cabrer, PhD	Associate Director	leonardo.cabrer@spglobal.com
Andrew Cairns, CFA	Associate Director	andrew.cairns@spglobal.com
Rui Li, ACA	Senior Analyst	rui.li@spglobal.com
Jingwen Shi, PhD	Senior Analyst	jingwen.shi@spglobal.com
INDEX INVESTMENT STRATEGY		
Craig J. Lazzara, CFA	Global Head	craig.lazzara@spglobal.com
Chris Bennett, CFA	Director	chris.bennett@spglobal.com
Fei Mei Chan	Director	feimei.chan@spglobal.com
Tim Edwards, PhD	Managing Director	tim.edwards@spglobal.com
Anu R. Ganti, CFA	Senior Director	anu.ganti@spglobal.com
Sherifa Issifu	Analyst	sherifa.issifu@spglobal.com

ABOUT ASIA INDEX PRIVATE LIMITED

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PERFORMANCE DISCLOSURE

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 December 31, 2013. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was 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. Complete index methodology details are available at www.spdji.com. Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown.

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 at a fixed value for calculation purposes. The Launch Date designates the date upon which 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 website or its datafeed 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.

The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com 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.

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