

## CONTRIBUTOR

**Akash Jain**

Associate Director

Global Research & Design

[akash.jain@spglobal.com](mailto:akash.jain@spglobal.com)

# SPIVA<sup>®</sup> India 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 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 reports on the performance of actively managed Indian mutual funds compared with their respective benchmark indices over 1-, 3-, 5-, and now 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 December 2016.
- Various events during the second half of 2016, both global—such as the U.S. Federal Reserve rate increase and the U.S. elections—and domestic—such as the passage of the GST bill in parliament and demonetization—kept Indian markets volatile.
- Over the one-year period ending December 2016, foreign portfolio investors (FPIs) added INR 205.66 billion to the Indian equity market, while they withdrew INR 436.45 billion from the Indian debt market.
- Over the one-year period ending December 2016, Indian equity markets underperformed Indian bond markets. The [S&P BSE 100](#), which seeks to measure the large-cap equity market in India, ended in the black, at 5.02%. The mid-cap equity market, as measured by the [S&P BSE MidCap](#), returned 9.28% over the same period. The [S&P BSE India Government Bond Index](#) delivered a total return of 13.51% over the one-year period ending December 2016.
- **Indian Large-Cap Equity Funds:** Over the 1-, 3-, 5-, and 10-year periods ending December 2016, 66.3%, 30.5%, 54.6% and 54.95% of large-cap equity funds in India underperformed the [S&P BSE 100](#), respectively. Over the 10-year period studied, the survivorship rate and style consistency were low, at 66.7% and 30.6%, respectively. The asset-weighted fund return for the same period was 51 bps higher than the equal-weighted fund return, and the return spread between the first and the third quartile break points of the fund performance was 3.55%.

- **Indian Equity-Linked Saving Schemes (ELSS):** Most of the actively managed funds in this peer group outperformed the [S&P BSE 200](#) over the three- and five-year periods ending December 2016. Over the one-year period, however, 64.3% of funds lagged the S&P BSE 200. Over the 10-year period, the survivorship rate was 96.15%, the asset-weighted fund return was 12 bps higher than the equal-weighted fund return, and the return spread between the first and the third quartile break points of the fund performance was 3.56%.
- **Indian Mid-/Small-Cap Equity Funds:** Over the 3-, 5-, and 10-year periods ending December 2016, the majority of the actively managed mid-/small-cap equity funds in India outperformed the [S&P BSE MidCap](#). Over the one-year period, however, 71.11% of the funds lagged the S&P BSE MidCap. Over the 10-year period studied, 46.03% of the funds underperformed the benchmark, while the survivorship rate and style consistency were low, at 65.08% and 28.6%, respectively. For the same period, the asset-weighted fund return was 99 bps higher than the equal-weighted fund return, and the return spread between the first and the third quartile break points of the fund performance was 4.33%.
- **Indian Government Bond Funds:** The majority of actively managed funds in this peer group underperformed the [S&P BSE Indian Government Bond Index](#) over the 3-, 5-, and 10-year periods. Over the 10-year period ending December 2016, 81.4% of the funds underperformed the benchmark, and the survivorship rate and style consistency were at 51.7% and 50%, respectively. Over the same period, the asset-weighted fund return was 37 bps higher than the equal-weighted fund return, and the return spread between the first and the third quartile break points of the fund performance was 1.61%.
- **Indian Composite Bond Funds:** Over the one-year period ending December 2016, 82.14% of actively managed funds in this category lagged the [S&P BSE India Bond Index](#). Over the 10-year period, 82.6% of the funds underperformed the benchmark, with the survivorship rate and style consistency at 58.7% and 45.65%, respectively. For the same period, the asset-weighted fund return was 23 bps lower than the equal-weighted fund return, and the return spread between the first and the third quartile break points of the fund performance was 1.53%.
- **Fund Survivorship:** Over the one-, three-, and five-year periods ending December 2016, Indian ELSS funds had a 100% survivorship rate. Over the 10-year period ending December 2016, none of the categories had a 100% survivorship rate.
- **Style Consistency:** Over the one-, three-, and five-year periods ending December 2016, only Indian ELSS funds maintained 100% style consistency. Over the 10-year period, only 30.63% of Indian Equity Large-Cap funds and 28.6% of Indian Equity Mid-/Small-Cap funds preserved their style consistency.
- **Average Fund Returns:** Over the 10-year period ending December 2016, Indian ELSS and Indian Equity Mid-/Small-Cap funds had higher equal- and asset-weighted returns than their respective benchmarks. In contrast, the Indian Government Bond and Indian Composite Bond funds delivered lower equal- and asset-weighted returns than their respective benchmarks over the same period. The Indian Equity Large-Cap fund category had lower equal-weighted returns but higher asset-weighted returns relative to its benchmark.

## 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.

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## REPORTS

### Report 1: Percentage of Funds Outperformed by the Index

FUND CATEGORY	COMPARISON INDEX	ONE-YEAR (%)	THREE-YEAR (%)	FIVE-YEAR (%)	TEN-YEAR (%)
Indian Equity Large-Cap	S&P BSE 100	66.29	30.52	54.60	54.95
Indian ELSS	S&P BSE 200	64.29	10.81	25.00	50.00
Indian Equity Mid-/Small-Cap	S&P BSE MidCap	71.11	48.53	42.03	46.03
Indian Government Bond	S&P BSE India Government Bond Index	36.36	70.59	74.51	81.36
Indian Composite Bond	S&P BSE India Bond Index	82.14	96.55	95.35	82.61

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of Dec. 31, 2016. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

### Report 2: Survivorship and Style Consistency of Indian Equity Funds

FUND CATEGORY	NO. OF FUNDS AT START	SURVIVORSHIP (%)	STYLE CONSISTENCY (%)
<b>ONE-YEAR</b>			
Indian Equity Large-Cap	89	94.38	70.79
Indian ELSS	42	100.00	100.00
Indian Equity Mid-/Small-Cap	45	97.78	86.67
Indian Government Bond	44	95.45	95.45
Indian Composite Bond	140	93.57	72.14
<b>THREE-YEAR</b>			
Indian Equity Large-Cap	154	85.06	40.91
Indian ELSS	37	100.00	100.00
Indian Equity Mid-/Small-Cap	68	89.71	51.47
Indian Government Bond	52	75.00	73.08
Indian Composite Bond	118	87.29	66.95
<b>FIVE-YEAR</b>			
Indian Equity Large-Cap	163	78.53	35.58
Indian ELSS	36	100.00	100.00
Indian Equity Mid-/Small-Cap	69	82.61	47.83
Indian Government Bond	51	68.63	66.67
Indian Composite Bond	89	88.76	68.54
<b>TEN-YEAR</b>			
Indian Equity Large-Cap	111	66.67	30.63
Indian ELSS	26	96.15	96.15
Indian Equity Mid-/Small-Cap	63	65.08	28.57
Indian Government Bond	60	51.67	50.00
Indian Composite Bond	92	58.70	45.65

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of Dec. 31, 2016. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

**Report 3: Average Fund Performance (Equal Weighted)**

INDEX/PEER GROUP	ONE-YEAR (%)	THREE-YEAR ANNUALIZED (%)	FIVE-YEAR ANNUALIZED (%)	TEN-YEAR ANNUALIZED (%)
S&P BSE 100	5.02	11.39	14.47	9.04
Indian Equity Large-Cap	4.49	14.72	15.22	8.68
S&P BSE 200	5.37	13.07	15.36	9.30
Indian ELSS	4.99	17.58	17.72	9.95
S&P BSE MidCap	9.28	23.07	20.27	9.07
Indian Equity Mid-/Small-Cap	4.90	24.68	22.93	11.71
S&P BSE India Government Bond Index	13.51	12.48	10.39	8.86
Indian Government Bond	14.32	11.43	9.63	7.88
S&P BSE India Bond Index	13.22	12.31	10.40	8.95
Indian Composite Bond	11.37	10.35	9.32	8.17

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of Dec. 31, 2016. 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	ONE-YEAR (%)	THREE-YEAR ANNUALIZED (%)	FIVE-YEAR ANNUALIZED (%)	TEN-YEAR ANNUALIZED (%)
S&P BSE 100	5.02	11.39	14.47	9.04
Indian Equity Large-Cap	5.77	14.90	15.60	9.20
S&P BSE 200	5.37	13.07	15.36	9.30
Indian ELSS	4.94	16.97	17.90	10.06
S&P BSE MidCap	9.28	23.07	20.27	9.07
Indian Equity Mid-/Small-Cap	5.41	23.81	22.35	12.70
S&P BSE India Government Bond Index	13.51	12.48	10.39	8.86
Indian Government Bond	15.90	12.65	9.88	8.25
S&P BSE India Bond Index	13.22	12.31	10.40	8.95
Indian Composite Bond	11.55	10.67	9.43	7.94

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of Dec. 31, 2016. Returns are shown in INR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

<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>			
Indian Equity Large-Cap	2.21	3.94	6.48
Indian ELSS	1.19	3.33	7.30
Indian Equity Mid-/Small-Cap	0.84	4.91	9.89
Indian Government Bond	13.09	15.22	16.64
Indian Composite Bond	9.54	10.63	12.38
<b>THREE-YEAR</b>			
Indian Equity Large-Cap	12.35	14.78	17.73
Indian ELSS	14.29	17.22	19.48
Indian Equity Mid-/Small-Cap	20.04	24.14	27.54
Indian Government Bond	10.81	12.06	13.44
Indian Composite Bond	9.50	10.11	11.25
<b>FIVE-YEAR</b>			
Indian Equity Large-Cap	13.19	15.21	17.74
Indian ELSS	15.37	16.94	18.72
Indian Equity Mid-/Small-Cap	19.40	23.39	25.74
Indian Government Bond	9.02	9.93	10.85
Indian Composite Bond	8.55	9.21	9.64
<b>TEN-YEAR</b>			
Indian Equity Large-Cap	8.20	10.38	11.74
Indian ELSS	7.66	9.51	11.22
Indian Equity Mid-/Small-Cap	9.36	11.45	13.69
Indian Government Bond	7.49	8.65	9.10
Indian Composite Bond	7.49	8.36	9.02

Source: S&P Dow Jones Indices LLC, Morningstar, and Association of Mutual Funds in India. Data as of Dec. 31, 2016. Returns are shown in INR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

## **APPENDIX A: GLOSSARY**

### **Data**

Data from Morningstar is obtained for all managed funds domiciled in India for which month-end data is available during the performance period. The data includes 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 Equity-Linked Saving Schemes (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.

<b>Exhibit 1A: Indian Funds: SPIVA and Current Morningstar Categories</b>	
<b>SPIVA CATEGORY</b>	<b>MORNINGSTAR CATEGORY</b>
Indian Equity Large-Cap	India Fund Large-Cap
Indian ELSS	India Fund ELSS (Tax Savings)
Indian Equity Mid-/Small-Cap	India Fund Small/Mid-Cap
Indian Government Bond	India Fund Long-Term Government Bond
	India Fund Intermediate Government Bond
	India Fund Short-Term Government Bond
Indian Composite Bond	India Fund Intermediate Bond
	India Fund Short-Term Bond

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

<b>Exhibit 1B: Indian Funds: SPIVA and Historical Morningstar Categories</b>	
<b>SPIVA CATEGORY</b>	<b>MORNINGSTAR CATEGORY</b>
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
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
Indian Composite Bond	India OE 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	

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 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.

<b>Exhibit 2: SPIVA Categories and Their Benchmarks</b>	
<b>SPIVA CATEGORY</b>	<b>BENCHMARK INDEX</b>
Indian Equity Large-Cap	S&P BSE 100
Indian ELSS	S&P BSE 200
Indian Equity Mid-/Small-Cap	S&P BSE MidCap
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.

## 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.

### Style Consistency (%)

This calculation shows the percentage of funds that had the same style classification at the end of the time period as at the beginning 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 pth 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 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 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 MIDCAP

The [S&P BSE MidCap](#) seeks to measure the mid-cap segment of the Indian equity market.

## 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.

<b>S&amp;P DJI Research Contributors</b>		
<b>NAME</b>	<b>TITLE</b>	<b>EMAIL</b>
Charles "Chuck" Mounts	Global Head	<a href="mailto:charles.mounts@spglobal.com">charles.mounts@spglobal.com</a>
<b>Global Research &amp; Design</b>		
Aye Soe, CFA	Americas Head	<a href="mailto:aye.soe@spglobal.com">aye.soe@spglobal.com</a>
Dennis Badlyans	Associate Director	<a href="mailto:dennis.badlyans@spglobal.com">dennis.badlyans@spglobal.com</a>
Phillip Brzenk, CFA	Director	<a href="mailto:phillip.brzenk@spglobal.com">phillip.brzenk@spglobal.com</a>
Smita Chirputkar	Director	<a href="mailto:smita.chirputkar@spglobal.com">smita.chirputkar@spglobal.com</a>
Rachel Du	Senior Analyst	<a href="mailto:rachel.du@spglobal.com">rachel.du@spglobal.com</a>
Qing Li	Associate Director	<a href="mailto:qing.li@spglobal.com">qing.li@spglobal.com</a>
Berlinda Liu, CFA	Director	<a href="mailto:berlinda.liu@spglobal.com">berlinda.liu@spglobal.com</a>
Ryan Poirier, FRM	Senior Analyst	<a href="mailto:ryan.poirier@spglobal.com">ryan.poirier@spglobal.com</a>
Maria Sanchez	Associate Director	<a href="mailto:maria.sanchez@spglobal.com">maria.sanchez@spglobal.com</a>
Kelly Tang, CFA	Director	<a href="mailto:kelly.tang@spglobal.com">kelly.tang@spglobal.com</a>
Peter Tsui	Director	<a href="mailto:peter.tsui@spglobal.com">peter.tsui@spglobal.com</a>
Hong Xie, CFA	Director	<a href="mailto:hong.xie@spglobal.com">hong.xie@spglobal.com</a>
Priscilla Luk	APAC Head	<a href="mailto:priscilla.luk@spglobal.com">priscilla.luk@spglobal.com</a>
Utkarsh Agrawal, CFA	Associate Director	<a href="mailto:utkarsh.agrawal@spglobal.com">utkarsh.agrawal@spglobal.com</a>
Liyu Zeng, CFA	Director	<a href="mailto:liyu.zeng@spglobal.com">liyu.zeng@spglobal.com</a>
Akash Jain	Associate Director	<a href="mailto:akash.jain@spglobal.com">akash.jain@spglobal.com</a>
Sunjiv Mainie, CFA, CQF	EMEA Head	<a href="mailto:sunjiv.mainie@spglobal.com">sunjiv.mainie@spglobal.com</a>
Daniel Ung, CFA, CAIA, FRM	Director	<a href="mailto:daniel.ung@spglobal.com">daniel.ung@spglobal.com</a>
Andrew Innes	Senior Analyst	<a href="mailto:andrew.innes@spglobal.com">andrew.innes@spglobal.com</a>
<b>Index Investment Strategy</b>		
Craig Lazzara, CFA	Global Head	<a href="mailto:craig.lazzara@spglobal.com">craig.lazzara@spglobal.com</a>
Fei Mei Chan	Director	<a href="mailto:feimei.chan@spglobal.com">feimei.chan@spglobal.com</a>
Tim Edwards, PhD	Senior Director	<a href="mailto:tim.edwards@spglobal.com">tim.edwards@spglobal.com</a>
Howard Silverblatt	Senior Industry Analyst	<a href="mailto:howard.silverblatt@spglobal.com">howard.silverblatt@spglobal.com</a>
Anu Ganti	Director	<a href="mailto:anu.ganti@spglobal.com">anu.ganti@spglobal.com</a>

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