

# SPIVA<sup>®</sup> U.S. Scorecard

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## Summary

MID-YEAR 2014

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- The U.S. domestic equity markets finished the 12-month period ending June 30, 2014, on a positive note. The S&P 500<sup>®</sup>, S&P MidCap 400<sup>®</sup> and S&P SmallCap 600<sup>®</sup> returned 24.61%, 25.24% and 25.54%, respectively. However, the results show that over this period most active domestic equity funds failed to achieve returns above their respective benchmark. With the exception of managers of multi-cap value funds and real estate funds, the majority of managers across all other categories underperformed the benchmark. According to the data, 59.78% of large-cap managers, 57.84% of mid-cap managers and 72.79% of small-cap managers underperformed their benchmarks.
- The past five years have been marked by the rare combination of a remarkable rebound in domestic equity markets and a low-volatility equity environment. This combination has proven to be difficult for domestic equity managers, as over 70% of them across all capitalization and style categories failed to deliver returns higher than their respective benchmarks.
- Similarly, the past 12 months have not been favorable for international equity managers. The majority of managers across all categories saw their returns lag behind the benchmarks. Approximately 70% of global equity funds, 75% of international equity funds, 81% of international small-cap funds and 65% of emerging market funds underperformed their benchmarks.
- Emerging markets equities returned to positive territory over the past 12 months, a period during which there was a sizable level of volatility, wide return dispersion and active management opportunities. It is often believed that in less efficient markets, such as emerging markets equities, active investing works better than passive investing because of its ability to take advantage of perceived mispricings. The results for emerging market funds dispel this myth, as the majority of funds underperformed their benchmark across all three time horizons measured.
- For the first time since introducing the International Equity category to the U.S. scorecard, the majority of active managers investing in international small-cap equities underperformed the benchmark over the past 12 months. The outcome was slightly more favorable when viewed over three- and five-year horizons, as over 50% of managers outperformed the benchmark.
- Among the fixed income categories, the one-year results for the government and investment-grade corporate bonds show a sharp reversal of fortunes from six months prior. A significant majority of the actively managed funds in the longer-term government and longer-term, investment-grade corporate bond categories underperformed the benchmarks, while these same categories had shown the largest percentage of outperformance over the one-year period ending in December 2013. This stark contrast in performance highlights the continuing, uncertain surrounding monetary policy and the difficulty in predicting the path of interest rates.

- In general, the results for actively managed fixed income funds is mixed depending on the time period being measured. However, there are a couple of consistent trends. Funds investing in high-yield and emerging market debt sectors continue to underperform the benchmarks over near-, mid- and longer-term horizons. At the same time, active funds investing in shorter-term and intermediate-term investment-grade corporate bonds and the national muni sectors appear to have done well consistently over one-, three- and five-year horizons.
- Funds disappear at a meaningful rate. Over the past five years, nearly 25% of domestic equity funds, 24% of global/international equity funds and 17% of fixed income funds have been merged or liquidated. This finding highlights the importance of addressing survivorship bias in mutual fund analysis.

## 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 11 years ago, the SPIVA Scorecard has served as the de facto scorekeeper of the active versus passive debate. Over the last 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 to popular benchmarks such as the S&P 500, regardless of size or style classification. SPIVA Scorecards avoid this pitfall by measuring a fund's returns against the returns of a benchmark appropriate for that particular 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 USD 10 billion fund affecting the average in the same manner as the returns of a USD 10 million fund. An accurate representation of how investors fared in a particular period can be ascertained by calculating weighted average returns where each fund's return is weighted by net assets. SPIVA Scorecards show both equal- and asset-weighted averages.
- **Style consistency:** SPIVA Scorecards measure style 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 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.

## Reports

<b>Report 1: Percentage of U.S. Equity Funds Outperformed by Benchmarks</b>				
Fund Category	Comparison Index	One-Year (%)	Three-Year (%)	Five-Year (%)
All Domestic Equity Funds	S&P Composite 1500	60.20	85.92	73.56
All Large-Cap Funds	S&P 500	59.78	84.94	86.94
All Mid-Cap Funds	S&P MidCap 400	57.84	77.17	87.55
All Small-Cap Funds	S&P SmallCap 600	72.79	91.56	87.87
All Multi-Cap Funds	S&P Composite 1500	60.05	86.10	82.26
Large-Cap Growth Funds	S&P 500 Growth	63.92	89.94	85.92
Large-Cap Core Funds	S&P 500	59.36	83.41	89.87
Large-Cap Value Funds	S&P 500 Value	50.43	76.38	82.42
Mid-Cap Growth Funds	S&P MidCap 400 Growth	51.70	77.78	92.63
Mid-Cap Core Funds	S&P MidCap 400	58.09	72.66	85.53
Mid-Cap Value Funds	S&P MidCap 400 Value	64.94	82.14	81.42
Small-Cap Growth Funds	S&P SmallCap 600 Growth	76.53	90.18	91.13
Small-Cap Core Funds	S&P SmallCap 600	72.06	87.63	90.61
Small-Cap Value Funds	S&P SmallCap 600 Value	68.00	91.74	78.32
Multi-Cap Growth Funds	S&P Composite 1500 Growth	55.50	94.84	81.74
Multi-Cap Core Funds	S&P Composite 1500	68.35	86.04	84.41
Multi-Cap Value Funds	S&P Composite 1500 Value	30.89	72.44	81.33
Real Estate Funds	S&P US Real Estate Investment Trust	41.67	91.18	91.55

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 2: Survivorship and Style Consistency of U.S. Equity Funds</b>			
Fund Category	No. of Funds at Start	Survivorship (%)	Style Consistency (%)
<b>One-Year</b>			
All Domestic Funds	2804	95.51	88.37
All Large-Cap Funds	1069	94.67	89.8
All Mid-Cap Funds	389	95.63	84.83
All Small-Cap Funds	610	95.57	89.51
All Multi-Cap Funds	736	96.60	87.23
Large-Cap Growth Funds	316	93.04	88.29
Large-Cap Blend Funds	406	94.58	86.95
Large-Cap Value Funds	347	96.25	94.52
Mid-Cap Growth Funds	176	94.89	89.2
Mid-Cap Blend Funds	136	95.59	78.68
Mid-Cap Value Funds	77	97.40	85.71
Small-Cap Growth Funds	213	94.84	92.49
Small-Cap Blend Funds	272	96.69	89.71
Small-Cap Value Funds	125	94.40	84.00
Multi-Cap Growth Funds	218	95.87	85.32
Multi-Cap Core Funds	395	96.71	89.11
Multi-Cap Value Funds	123	97.56	84.55
Real Estate Funds	144	97.22	97.22
<b>Three-Year</b>			
All Domestic Funds	2905	83.89	64.1
All Large-Cap Funds	1102	81.85	66.70
All Mid-Cap Funds	403	84.62	60.55
All Small-Cap Funds	616	86.85	69.16
All Multi-Cap Funds	784	84.06	58.29
Large-Cap Growth Funds	348	81.03	68.39
Large-Cap Blend Funds	428	80.84	62.85
Large-Cap Value Funds	326	84.05	69.94

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 2: Survivorship and Style Consistency of U.S. Equity Funds (cont.)</b>			
Fund Category	No. of Funds at Start	Survivorship (%)	Style Consistency (%)
<b>Three-Year</b>			
Mid-Cap Growth Funds	180	84.44	71.11
Mid-Cap Blend Funds	139	82.01	53.24
Mid-Cap Value Funds	84	89.29	50.00
Small-Cap Growth Funds	224	83.04	76.34
Small-Cap Blend Funds	283	87.99	67.14
Small-Cap Value Funds	109	91.74	59.63
Multi-Cap Growth Funds	213	84.04	58.22
Multi-Cap Core Funds	444	84.23	61.94
Multi-Cap Value Funds	127	83.46	45.67
Real Estate Funds	136	95.59	95.59
<b>Five-Year</b>			
All Domestic Funds	3026	74.98	51.62
All Large-Cap Funds	1087	72.59	56.39
All Mid-Cap Funds	482	74.27	45.02
All Small-Cap Funds	668	77.4	56.74
All Multi-Cap Funds	789	76.68	44.74
Large-Cap Growth Funds	355	73.8	58.31
Large-Cap Blend Funds	385	70.91	55.06
Large-Cap Value Funds	347	73.2	55.91
Mid-Cap Growth Funds	217	70.05	53.92
Mid-Cap Blend Funds	152	75	41.45
Mid-Cap Value Funds	113	81.42	32.74
Small-Cap Growth Funds	248	75.4	63.31
Small-Cap Blend Funds	277	77.26	57.76
Small-Cap Value Funds	143	81.12	43.36
Multi-Cap Growth Funds	219	75.34	43.38
Multi-Cap Core Funds	404	76.24	52.48
Multi-Cap Value Funds	166	79.52	27.71
Real Estate Funds	142	88.03	88.03

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 3: Average U.S. Equity Fund Performance (Equal-Weighted)</b>			
Category	One-Year (%)	Three-Year (Annualized %)	Five-Year (Annualized %)
S&P Composite 1500	24.73	16.48	19.18
All Domestic Funds	23.76	13.81	17.95
S&P 500	24.62	16.58	18.83
All Large-Cap Funds	23.69	14.48	16.99
S&P MidCap 400	25.26	15.27	21.68
All Mid-Cap Funds	24.78	13.3	19.42
S&P SmallCap 600	25.54	16.81	21.98
All Small-Cap Funds	23.29	13.51	19.61
S&P Composite 1500	24.73	16.48	19.18
All Multi-Cap Funds	23.61	13.23	16.94
<b>Large-Cap</b>			
S&P 500 Growth	27.13	16.95	19.18
Large-Cap Growth Funds	26.41	14.30	17.26
S&P 500	24.62	16.58	18.83
Large-Cap Core Funds	23.31	14.65	16.82
S&P 500 Value	21.98	16.26	18.53
Large-Cap Value Funds	21.54	14.37	16.84
<b>Mid-Cap</b>			
S&P MidCap 400 Growth	23.2	13.56	21.52
Mid-Cap Growth Funds	24.05	12.05	19.15
S&P MidCap 400	25.26	15.27	21.68
Mid-Cap Core Funds	24.93	13.64	19.23
S&P MidCap 400 Value	27.38	17.07	21.87
Mid-Cap Value Funds	26.07	15.32	20.15

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

**Report 3: Average U.S. Equity Fund Performance (Equal-Weighted) (cont.)**

Category	One-Year (%)	Three-Year (Annualized %)	Five-Year (Annualized %)
<b>Small-Cap</b>			
S&P SmallCap 600 Growth	25.61	15.76	22.35
Small-Cap Growth Funds	22.83	12.51	19.38
<b>S&amp;P SmallCap 600</b>			
S&P SmallCap 600	25.54	16.81	21.98
Small-Cap Core Funds	23.76	13.96	19.65
<b>S&amp;P SmallCap 600 Value</b>			
S&P SmallCap 600 Value	25.42	17.91	21.67
Small-Cap Value Funds	22.93	14.35	19.67
<b>Multi-Cap</b>			
S&P Composite 1500 Growth	26.77	16.64	19.5
Multi-Cap Growth Funds	25.89	13.22	17.5
<b>S&amp;P Composite 1500</b>			
S&P Composite 1500	24.73	16.48	19.18
Multi-Cap Core Funds	22.45	12.86	16.45
<b>S&amp;P Composite 1500 Value</b>			
S&P Composite 1500 Value	22.54	16.38	18.91
Multi-Cap Value Funds	23.4	14.33	17.5
<b>Real Estate</b>			
S&P BMI U.S. REIT	13.19	11.82	23.81
Real Estate Funds	13.73	10.03	19.79

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

**Report 4: Average U.S. Equity Fund Performance (Asset-Weighted)**

Category	One-Year (%)	Three-Year (Annualized %)	Five-Year (Annualized %)
S&P Composite 1500	24.73	16.48	19.18
All Domestic Funds	24.27	14.59	17.83
<b>S&amp;P 500</b>			
S&P 500	24.62	16.58	18.83
All Large-Cap Funds	24.16	15.10	17.34
<b>S&amp;P MidCap 400</b>			
S&P MidCap 400	25.26	15.27	21.68
All Mid-Cap Funds	24.61	14.01	19.51
<b>S&amp;P SmallCap 600</b>			
S&P SmallCap 600	25.54	16.81	21.98
All Small-Cap Funds	23.60	13.85	19.80
<b>S&amp;P Composite 1500</b>			
S&P Composite 1500	24.73	16.48	19.18
All Multi-Cap Funds	24.53	13.94	17.20

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. All index returns used are total returns. Charts and tables are provided for illustrative purposes. Past performance is not a guarantee of future results.

<b>Report 4: Average U.S. Equity Fund Performance (Asset-Weighted) (cont.)</b>			
Category	One-Year (%)	Three-Year (Annualized %)	Five-Year (Annualized %)
<b>Large-Cap</b>			
S&P 500 Growth	27.13	16.95	19.18
Large-Cap Growth Funds	27.14	15.20	17.81
<b>S&amp;P 500</b>			
S&P 500	24.62	16.58	18.83
Large-Cap Core Funds	24.04	15.33	17.12
<b>S&amp;P 500 Value</b>			
S&P 500 Value	21.98	16.26	18.53
Large-Cap Value Funds	21.44	14.52	16.82
<b>S&amp;P MidCap 400 Growth</b>			
S&P MidCap 400 Growth	23.20	13.56	21.52
Mid-Cap Growth Funds	23.91	12.89	19.32
<b>S&amp;P MidCap 400</b>			
S&P MidCap 400	25.26	15.27	21.68
Mid-Cap Core Funds	24.77	14.39	19.67
<b>S&amp;P MidCap 400 Value</b>			
S&P MidCap 400 Value	27.38	17.07	21.87
Mid-Cap Value Funds	25.76	15.69	19.64
<b>Small-Cap</b>			
S&P SmallCap 600 Growth	25.61	15.76	22.35
Small-Cap Growth Funds	23.27	13.66	20.33
<b>S&amp;P SmallCap 600</b>			
S&P SmallCap 600	25.54	16.81	21.98
Small-Cap Core Funds	23.56	13.77	19.43
<b>S&amp;P SmallCap 600 Value</b>			
S&P SmallCap 600 Value	25.42	17.91	21.67
Small-Cap Value Funds	24.02	14.24	19.63
<b>Multi-Cap</b>			
S&P Composite 1500 Growth	26.77	16.64	19.5
Multi-Cap Growth Funds	27.71	15.10	18.94
<b>S&amp;P Composite 1500</b>			
S&P Composite 1500	24.73	16.48	19.18
Multi-Cap Core Funds	22.90	12.98	16.61
<b>S&amp;P Composite 1500 Value</b>			
S&P Composite 1500 Value	22.54	16.38	18.91
Multi-Cap Value Funds	23.25	14.85	16.87
<b>Real Estate</b>			
S&P BMI U.S. REIT	13.19	11.82	23.81
Real Estate Funds	14.28	10.40	20.12

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. All index returns used are total returns. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.



<b>Report 5: Quartile Breakpoints of U.S. Equity Funds</b>			
Fund Category	Third Quartile	Second Quartile	First Quartile
<b>One-Year</b>			
Large-Cap Growth Funds	24.48	26.33	28.82
Large-Cap Core Funds	21.69	23.93	25.86
Large-Cap Value Funds	20.31	22.06	23.94
Mid-Cap Growth Funds	21.52	23.31	26.42
Mid-Cap Core Funds	22.81	24.97	26.94
Mid-Cap Value Funds	24.37	26.78	28.22
Small-Cap Growth Funds	18.55	22.63	25.58
Small-Cap Core Funds	21.61	23.93	25.97
Small-Cap Value Funds	21.50	23.91	26.18
Multi-Cap Growth Funds	23.04	25.72	29.17
Multi-Cap Core Funds	19.31	22.52	25.70
Multi-Cap Value Funds	21.61	23.98	26.43
Real Estate Funds	12.53	13.63	14.50
<b>Three-Year</b>			
Large-Cap Growth Funds	13.31	14.56	15.98
Large-Cap Core Funds	13.50	15.21	16.30
Large-Cap Value Funds	13.97	15.28	16.40
Mid-Cap Growth Funds	10.26	12.30	13.78
Mid-Cap Core Funds	12.41	14.29	15.68
Mid-Cap Value Funds	13.67	15.36	16.77
Small-Cap Growth Funds	11.02	12.69	14.65
Small-Cap Core Funds	12.89	14.12	15.77
Small-Cap Value Funds	13.20	14.86	15.98
Multi-Cap Growth Funds	12.15	14.06	15.53
Multi-Cap Core Funds	10.65	13.13	15.67
Multi-Cap Value Funds	13.21	15.02	16.89
Real Estate Funds	9.04	10.29	11.13
<b>Five-Year</b>			
Large-Cap Growth Funds	16.26	17.70	18.69
Large-Cap Core Funds	16.10	17.14	18.34
Large-Cap Value Funds	16.33	17.45	18.44

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. All index returns used are total returns. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

**Report 5: Quartile Breakpoints of U.S. Equity Funds**

Fund Category	Third Quartile	Second Quartile	First Quartile
<b>Five-Year</b>			
Mid-Cap Growth Funds	17.95	19.32	20.38
Mid-Cap Core Funds	18.37	19.95	21.37
Mid-Cap Value Funds	18.19	20.27	21.74
<b>Small-Cap</b>			
Small-Cap Growth Funds	18.51	19.97	21.35
Small-Cap Core Funds	18.41	19.96	21.29
Small-Cap Value Funds	18.60	20.32	21.77
<b>Multi-Cap</b>			
Multi-Cap Growth Funds	16.43	18.03	19.43
Multi-Cap Core Funds	14.15	16.38	18.70
Multi-Cap Value Funds	15.94	17.54	18.83
Real Estate Funds	16.06	21.22	23.02

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. All index returns used are total returns. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

**Report 6: Percentage of International Equity Funds Outperformed by Benchmarks**

Fund Category	Comparison Index	One-Year (%)	Three-Year (%)	Five-Year (%)
Global Funds	S&P Global 1200	70.00	75.62	74.23
International Funds	S&P 700	74.86	65.43	70.26
International Small-Cap Funds	S&P Developed Ex-U.S. SmallCap	81.33	43.10	45.76
Emerging Markets Funds	S&P/IFCI Composite	64.55	61.11	68.00

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Outperformance is based upon equal weighted fund counts. All index returns used are total returns. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

**Report 7: Survivorship and Style Consistency of International Equity Funds**

Fund Category	No. of Funds at Start	Survivorship (%)	Style Consistency (%)
<b>One-Year</b>			
Global Funds	260	93.08	91.15
International Funds	350	96.00	95.14
International Small-Cap Funds	75	96.00	93.33
Emerging Markets Funds	220	93.18	92.73
<b>Three-Year</b>			
Global Funds	201	79.60	77.61
International Funds	350	84.00	82.29
International Small-Cap Funds	58	96.55	93.10
Emerging Markets Funds	180	86.67	86.11
<b>Five-Year</b>			
Global Funds	163	67.48	66.26
International Funds	343	74.64	72.89
International Small-Cap Funds	59	88.14	77.97
Emerging Markets Funds	150	81.33	80.67

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

**Report 8: Average International Equity Fund Performance (Equal-Weighted)**

Category	One-Year (%)	Three-Year (Annualized %)	Five-Year (Annualized %)
S&P Global 1200	24.21	12.04	15.47
Global Funds	22.02	9.87	14.09
S&P 700	23.80	7.53	12.17
International Funds	21.31	6.84	11.55
S&P Developed Ex-U.S. SmallCap	29.95	9.07	15.47
International Small-Cap Funds	25.52	9.59	16.17
S&P/IFCI Composite	16.01	0.51	10.13
Emerging Markets Funds	14.52	0.47	9.52

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. All index returns used are total returns. Funds are equal-weighted, but indices are not. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

**Report 9: Average International Equity Fund Performance (Asset-Weighted)**

Category	One-Year (%)	Three-Year (Annualized %)	Five-Year (Annualized %)
S&P Global 1200	24.21	12.04	15.47
Global Funds	21.97	10.94	14.34
S&P 700	23.80	7.53	12.17
International Funds	22.05	7.63	12.22
S&P Developed Ex-U.S. SmallCap	29.95	9.07	15.47
International Small-Cap Funds	24.44	10.08	15.90
S&P/IFCI Composite	16.01	0.51	10.13
Emerging Markets Funds	15.60	1.96	10.78

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

**Report 10: Quartile Breakpoints of International Equity Funds**

Fund Category	Third Quartile	Second Quartile	First Quartile
<b>One-Year</b>			
Global Funds	18.96	22.34	24.79
International Funds	18.99	21.04	23.93
International Small-Cap Funds	22.25	25.59	29.11
Emerging Markets Funds	10.90	14.51	18.06
<b>Three-Year</b>			
Global Funds	9.21	11.04	12.48
International Funds	5.72	7.11	8.42
International Small-Cap Funds	7.60	9.64	11.77
Emerging Markets Funds	-1.55	0.24	2.66
<b>Five-Year</b>			
Global Funds	13.46	14.75	16.15
International Funds	10.46	11.73	12.90
International Small-Cap Funds	14.03	16.06	17.45
Emerging Markets Funds	8.14	9.45	11.32

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

**Report 11: Percentage of Fixed Income Funds Outperformed by Benchmarks**

Fund Category	Comparison Index	One-Year (%)	Three-Year (%)	Five-Year (%)
Government Long Funds	Barclays Long Government	97.73	98.88	96.47
Government Intermediate Funds	Barclays Intermediate Government	41.94	62.50	58.54
Government Short Funds	Barclays 1-3 Year Government	45.45	51.22	48.84
Investment-Grade Long Funds	Barclays Long Government/Credit	87.80	96.24	85.00
Investment-Grade Intermediate Funds	Barclays Intermediate Government/Credit	22.15	33.57	39.43
Investment-Grade Short Funds	Barclays 1-3 Year Government/Credit	23.86	23.17	30.49
High-Yield Funds	Barclays High Yield	72.77	85.71	85.35
Mortgage-Backed Securities Funds	Barclays Mortgage-Backed Securities	73.02	59.68	45.00
Global Income Funds	Barclays Global Aggregate	62.76	41.32	44.76
Emerging Markets Debt Funds	Barclays Emerging Markets	81.01	86.54	64.29
General Municipal Debt Funds	S&P National AMT-Free Municipal Bond	33.65	37.63	45.45
California Municipal Debt Funds	S&P California AMT-Free Municipal Bond	60.53	22.86	55.00
New York Municipal Debt Funds	S&P New York AMT-Free Municipal Bond	74.19	58.06	58.82

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Outperformance is based upon equal weighted fund counts. All index returns used are total returns. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 12: Survivorship and Style Consistency of Fixed Income Funds</b>			
Fund Category	No. of Funds at Start	Survivorship (%)	Style Consistency (%)
<b>One-Year</b>			
Government Long Funds	88	98.86	96.59
Government Intermediate Funds	31	90.32	87.10
Government Short Funds	44	97.73	95.45
Investment-Grade Long Funds	123	97.56	90.24
Investment-Grade Intermediate Funds	298	96.64	95.64
Investment-Grade Short Funds	88	95.45	95.45
High-Yield Funds	224	95.98	95.98
Mortgage-Backed Securities Funds	63	92.06	92.06
Global Income Funds	145	95.86	95.17
Emerging Markets Debt Funds	79	98.73	98.73
General Municipal Debt Funds	104	97.12	96.15
California Municipal Debt Funds	38	100.00	100.00
New York Municipal Debt Funds	31	100.00	100.00
<b>Three-Year</b>			
Government Long Funds	89	91.01	87.64
Government Intermediate Funds	40	75.00	65.00
Government Short Funds	41	90.24	85.37
Investment-Grade Long Funds	133	90.23	71.43
Investment-Grade Intermediate Funds	283	86.22	83.75
Investment-Grade Short Funds	82	87.80	85.37
High-Yield Funds	210	90.48	89.52
Mortgage-Backed Securities Funds	62	91.94	88.71
Global Income Funds	121	89.26	87.60
Emerging Markets Debt Funds	52	96.15	96.15
General Municipal Debt Funds	93	91.40	90.32
California Municipal Debt Funds	35	97.14	97.14
New York Municipal Debt Funds	31	93.55	93.55

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

**Report 12: Survivorship and Style Consistency of Fixed Income Funds (cont.)**

Fund Category	No. of Funds at Start	Survivorship (%)	Style Consistency (%)
<b>Five-Year</b>			
Government Long Funds	85	87.06	81.18
Government Intermediate Funds	41	73.17	63.41
Government Short Funds	43	83.72	79.07
Investment-Grade Long Funds	140	85.00	65.00
Investment-Grade Intermediate Funds	279	77.78	74.55
Investment-Grade Short Funds	82	76.83	74.39
High-Yield Funds	198	85.86	84.34
Mortgage-Backed Securities Funds	60	88.33	85.00
Global Income Funds	105	80.95	78.10
Emerging Markets Debt Funds	28	96.43	96.43
General Municipal Debt Funds	88	84.09	84.09
California Municipal Debt Funds	40	85.00	85.00
New York Municipal Debt Funds	34	79.41	79.41

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2014. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 13: Average Fixed Income Fund Performance (Equal-Weighted)</b>			
Category	One-Year (%)	Three-Year (Annualized %)	Five-Year (Annualized %)
Barclays Long Government	6.44	8.70	7.40
Government Long Funds	3.24	3.02	4.05
Barclays Intermediate Government	1.54	1.96	2.83
Government Intermediate Funds	2.23	2.08	2.98
Barclays 1-3 Year Government	0.77	0.66	1.24
Government Short Funds	0.98	0.71	1.51
Barclays Long Government/Credit	10.78	9.56	9.59
Investment-Grade Long Funds	7.42	5.72	7.51
Barclays Intermediate Government/Credit	2.85	2.83	4.09
Investment-Grade Intermediate Funds	4.59	3.65	5.40
Barclays 1-3 Year Government/Credit	1.12	0.99	1.72
Investment-Grade Short Funds	2.16	2.02	3.30
Barclays High Yield	11.74	9.49	13.98
High-Yield Funds	10.42	8.19	12.25
Barclays Mortgage-Backed Securities	4.64	2.81	3.91
Mortgage-Backed Securities Funds	4.09	2.87	4.48
Barclays Global Aggregate	7.38	2.57	4.60
Global Income Funds	6.51	3.35	6.07
Barclays Emerging Markets	10.18	7.36	10.82
Emerging Markets Debt Funds	7.14	4.10	9.06
S&P National AMT-Free Municipal Bond	5.48	4.91	5.58
General Municipal Debt Funds	6.07	5.35	5.81
S&P California AMT-Free Municipal Bond	7.84	6.18	6.88
California Municipal Debt Funds	7.52	6.93	7.09
S&P New York AMT-Free Municipal Bond	6.46	4.98	5.48
New York Municipal Debt Funds	5.25	4.88	5.60

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2013. All index returns used are total returns. Funds are equal-weighted, but indices are not. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 14: Average Fixed Income Fund Performance (Asset-Weighted)</b>			
Category	One-Year (%)	Three-Year (Annualized %)	Five-Year (Annualized %)
Barclays Long Government	6.44	8.70	7.40
Government Long Funds	2.86	3.04	4.33
Barclays Intermediate Government	1.54	1.96	2.83
Government Intermediate Funds	1.92	2.63	3.87
Barclays 1-3 Year Government	0.77	0.66	1.24
Government Short Funds	2.25	1.83	3.14
Barclays Long Government/Credit	10.78	9.56	9.59
Investment-Grade Long Funds	8.51	6.36	8.18
Barclays Intermediate Government/Credit	2.85	2.83	4.09
Investment-Grade Intermediate Funds	4.90	4.13	6.15
Barclays 1-3 Year Government/Credit	1.12	0.99	1.72
Investment-Grade Short Funds	2.68	2.35	3.77
Barclays High Yield	11.74	9.49	13.98
High-Yield Funds	10.08	8.01	12.26
Barclays Mortgage-Backed Securities	4.64	2.81	3.91
Mortgage-Backed Securities Funds	4.63	3.61	4.96
Barclays Global Aggregate	7.38	2.57	4.60
Global Income Funds	6.29	3.69	6.52
Barclays Emerging Markets	10.18	7.36	10.82
Emerging Markets Debt Funds	7.73	4.34	9.30
S&P National Municipal Bond	5.48	4.91	5.58
General Municipal Debt Funds	6.55	5.99	6.36
S&P California Municipal Bond	7.84	6.18	6.88
California Municipal Debt Funds	7.50	7.12	7.30
S&P New York Municipal Bond	6.46	4.98	5.48
New York Municipal Debt Funds	3.96	4.93	6.21

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2013. All index returns used are total returns. Funds are equal-weighted, but indices are not. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.



<b>Report 15: Quartile Breakpoints of Fixed Income Funds</b>			
Fund Category	Third Quartile	Second Quartile	First Quartile
<b>One-Year</b>			
Government Long Funds	2.04	3.13	4.48
Government Intermediate Funds	1.26	1.93	2.89
Government Short Funds	0.39	0.85	1.31
Investment-Grade Long Funds	5.04	6.51	8.88
Investment-Grade Intermediate Funds	3.17	4.78	5.92
Investment-Grade Short Funds	1.27	1.95	2.61
High-Yield Funds	9.90	10.87	11.84
Mortgage-Backed Securities Funds	3.64	3.99	4.75
Global Income Funds	4.84	6.74	8.25
Emerging Markets Debt Funds	4.06	7.73	9.59
General Municipal Debt Funds	5.25	6.30	7.35
California Municipal Debt Funds	6.77	7.44	8.34
New York Municipal Debt Funds	4.46	5.12	6.49
<b>Three-Year</b>			
Government Long Funds	1.83	2.82	3.43
Government Intermediate Funds	1.21	2.00	2.41
Government Short Funds	0.36	0.73	0.99
Investment-Grade Long Funds	3.91	4.81	6.47
Investment-Grade Intermediate Funds	2.96	4.07	4.84
Investment-Grade Short Funds	1.38	1.86	2.40
High-Yield Funds	7.89	8.58	9.13
Mortgage-Backed Securities Funds	2.22	2.65	3.15
Global Income Funds	1.72	3.11	4.78
Emerging Markets Debt Funds	1.11	4.63	6.45
General Municipal Debt Funds	4.51	5.71	6.75
California Municipal Debt Funds	6.31	6.97	7.48
New York Municipal Debt Funds	4.49	4.93	5.62

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2013. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

<b>Report 15: Quartile Breakpoints of Fixed Income Funds (cont.)</b>			
Fund Category	Third Quartile	Second Quartile	First Quartile
<b>Five-Year</b>			
Government Long Funds	2.81	3.94	5.38
Government Intermediate Funds	2.11	2.91	3.39
Government Short Funds	0.87	1.40	1.82
Investment-Grade Long Funds	5.53	6.82	8.96
Investment-Grade Intermediate Funds	4.41	5.83	6.87
Investment-Grade Short Funds	2.47	3.01	3.79
High-Yield Funds	11.72	12.68	13.52
Mortgage-Backed Securities Funds	3.64	4.25	5.06
Global Income Funds	4.02	5.47	7.83
Emerging Markets Debt Funds	7.47	10.22	11.13
General Municipal Debt Funds	5.22	6.11	6.93
California Municipal Debt Funds	6.53	7.01	7.46
New York Municipal Debt Funds	4.98	5.50	6.42

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2013. Charts and tables are provided for illustrative purposes. Past performance is no guarantee of future results.

## Appendix A

### SPIVA Styles and Lipper Fund Classifications

The CRSP Survivor-Bias-Free US Mutual Fund Database is the only complete database of both active and liquidated/merged mutual funds. It was created in 1995 and contains fund data from December 1961. Current and historical data from August 1998 has been supplied by Lipper and Thomson Reuters. The fund classifications are based upon the Lipper fund classification system. The SPIVA Scorecard covers domestic equity, global equity and global fixed income categories.

#### U.S. Equity

SPIVA covers major capitalization levels (large-, mid-, small- and multi-cap funds) and investment styles (growth, core and value). S&P Dow Jones Indices uses the Lipper fund classifications, which determine a fund portfolio's capitalization and investment style assignments.

Lipper assigns a market capitalization to each fund based on the percentages of a fund's three-year weighted equity assets that fall into each of Lipper's three defined market capitalization slices. The market capitalization breakpoints are calculated using all common stocks, excluding all non-US domiciled stocks and ADRs, trading on the NYSE, AMEX and NASDAQ. Funds are assigned to the capitalization level in which they have a 75% or higher weighting. Any fund that has less than 75% of its three-year weighted allocation in any of the three market capitalization ranges is classified as a multi-cap fund.

For investment style selection, the Lipper classification system uses three-year fundamental portfolio characteristics (price/earnings, price/book and three-year sales-per-share growth) and, if necessary, confirming secondary characteristics (price-to-sales and price-to-operating cash flow). Fund statistics are compared to their relevant S&P Dow Jones Indices capitalization-level index to determine the growth, core or value style.

In some cases, S&P Dow Jones Indices combines closely related Lipper fund classifications in one SPIVA category. Exhibit 2 maps the SPIVA U.S. Equity fund categories to Lipper classifications.

**Exhibit 2: U.S. Equity Category Mappings**

SPIVA Category	Lipper Fund Classification
Large-Cap Growth Funds	Large-Cap Growth Funds
Large-Cap Core Funds	Large-Cap Core Funds
Large-Cap Value Funds	Large-Cap Value Funds
	Equity Income Funds
Mid-Cap Growth Funds	Mid-Cap Growth Funds
Mid-Cap Core Funds	Mid-Cap Core Funds
Mid-Cap Value Funds	Mid-Cap Value Funds
Small-Cap Growth Funds	Small-Cap Growth Funds
Small-Cap Core Funds	Small-Cap Core Funds
Small-Cap Value Funds	Small-Cap Value Funds
Multi-Cap Growth Funds	Multi-Cap Growth Funds
Multi-Cap Core Funds	Multi-Cap Core Funds
Multi-Cap Value Funds	Multi-Cap Value Funds
Real Estate Funds	Real Estate Funds

**International Equity**

For international equity, SPIVA reports on four major categories (Global, International, International Small-Cap and Emerging Markets funds) of interest to global asset allocators. These categories also include multiple Lipper capitalization/style classifications.

**Exhibit 3: Global Equity Category Mappings**

SPIVA Category	Lipper Fund Classification
Global Funds	Global Large-Cap Growth Funds
	Global Large-Cap Core Funds
	Global Large-Cap Value Funds
	Global Multi-Cap Growth Funds
	Global Multi-Cap Core Funds
	Global Multi-Cap Value Funds
International Funds	International Large-Cap Growth Funds
	International Large-Cap Core Funds
	International Large-Cap Value Funds
	International Multi-Cap Growth Funds
	International Multi-Cap Core Funds
	International Multi-Cap Value Funds
International Small-Cap Funds	International Small/Mid-Cap Growth Funds
	International Small/Mid-Cap Core Funds
	International Small/Mid-Cap Value Funds
Emerging Markets Funds	Emerging Markets Funds

## Fixed Income

SPIVA reports on eight domestic, two global and three municipal fixed income categories. The Lipper domestic fixed income classifications are based on maturity and credit quality. For maturity, long is 10+ years, intermediate is 5-10 years, short/intermediate is 1-5 years and short is 1-3.5 years. For credit quality, bonds are assigned to U.S. Treasury, U.S. Government (includes government and agency issues), A- or BBB-rated (according to Lipper fund rating methodology) and High Yield classifications. Lipper also includes U.S. Mortgages and GNMA classifications.

In global fixed income, Lipper differentiates between global (including the U.S.) and international (excluding the U.S.) objectives. For municipal debt funds, we include the general classification (invests in the top four credit ratings) plus two state funds (California and New York).

### Exhibit 4: Fixed Income Category Mappings

SPIVA Category	Lipper Fund Classification
Government Long Funds	General U.S. Government Funds
	General U.S. Treasury Funds
	Intermediate U.S. Government
Government Intermediate Funds	Short-Intermediate U.S. Government
	Short U.S. Government Funds
Government Short Funds	Short U.S. Treasury
Investment-Grade Long Funds	Corporate Debt Funds A Rated
	Corporate Debt Funds BBB-Rated
Investment-Grade Intermediate Funds	Intermediate Investment-Grade Debt Funds
	Short-Intermediate Investment-Grade Debt Funds
Investment-Grade Short Funds	Short Investment-Grade Debt Funds
High-Yield Funds	High Current Yield Funds
Mortgage-Backed Securities Funds	U.S. Mortgage Funds
	GNMA Funds
Global Income Funds	Global Income Funds
	International Income Funds
Emerging Market Debt Funds	Emerging Markets Debt Funds
General Municipal Debt Funds	General Municipal Debt Funds
California Municipal Debt Funds	California Municipal Debt Funds
New York Municipal Debt Funds	New York Municipal Debt Funds

## 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.

### 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 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  $p^{\text{th}}$  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 75<sup>th</sup> percentile, the value separating the elements of a population into the lower 75% and the upper 25%. The second quartile is the 50<sup>th</sup> percentile and the third quartile is the 25<sup>th</sup> 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<sup>1</sup>

A benchmark index provides an investment vehicle against which fund performance can be measured.

<sup>1</sup>For more information on S&P Dow Jones Indices, please visit [www.indices.standardandpoors.com](http://www.indices.standardandpoors.com).

## U.S. Equity

### **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 500 leading companies in the foremost industries of the U.S. economy and provides over 80% coverage of U.S. equities.

### **S&P MidCap 400®**

This index consists of 400 mid-sized companies and covers approximately 7% of the U.S. equities market.

### **S&P SmallCap 600®**

This index consists of 600 small-cap stocks and covers approximately 3% of the U.S. equities market.

### **S&P Composite 1500 Index**

This is a broad, market capitalization weighted index of 1500 stocks. This index is comprised of three size-based indices: the S&P 500, S&P MidCap 400 and S&P SmallCap 600, which measure the performance of large-, mid- and small-cap stocks, respectively. This index represents 90% of U.S. equities.

### **S&P 500 Growth and Value Indices**

These indices form an exhaustive, multi-factor style series covering the entire market capitalization of the S&P 500. Constituents, weighted according to market capitalization, are classified as growth, value or a mix of growth and value.

### **S&P MidCap 400 Growth and Value Indices**

These indices form an exhaustive, multi-factor style series covering the entire market capitalization of the S&P MidCap 400.

### **S&P SmallCap 600 Growth and Value Indices**

These indices form an exhaustive, multi-factor style series covering the entire market capitalization of the S&P SmallCap 600.

### **S&P Composite 1500 Growth and Value Indices**

These indices form an exhaustive, multi-factor style series covering the entire market capitalization of the S&P Composite 1500.

### **S&P United States REIT Index**

This index measures the investable universe of publicly traded real estate investment trusts.

## International Equity

### **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 (United States), 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 700**

This index measures the non-United States component of the global equity markets, covering all the regions included in the S&P Global 1200 excluding the U.S. (S&P 500).

**S&P World Ex-U.S. Small Cap**

This index represents the small-cap segment - the bottom 15% of the world's universe of institutionally investable securities excluding the U.S.

**S&P/IFCI Composite Index**

This index is widely recognized as a comprehensive and reliable measure of the world's emerging markets. It measures the returns of stocks that are legally and practically available to foreign investors.

Fixed Income<sup>2</sup>

**Barclays Capital Long Government Bond Index**

This index consists of U.S. Treasury and U.S. Government agency bonds with maturities greater than ten years.

**Barclays Capital Intermediate Government Bond Index**

This index consists of U.S. Treasury and U.S. Government agency bonds with maturities from one to ten years.

**Barclays Capital 1-3 Year Government Bond Index**

This index consists of U.S. Treasury and U.S. Government agency bonds with maturities from one to three years.

**Barclays Capital Long Government/Credit Bond Index**

This index covers corporate and non-corporate fixed income securities that are rated investment-grade and have maturities greater than ten years.

**Barclays Capital Intermediate Government/Credit Bond Index**

This index covers corporate and non-corporate fixed income securities that are rated investment-grade with maturities from one to ten years.

**Barclays Capital 1-3 Year Government/Credit Bond Index**

This index covers corporate and non-corporate fixed income securities that are rated investment-grade and have one to three years to final maturity.

**Barclays Capital High Yield Bond Index**

This index includes all fixed income securities with a maximum quality rating of Ba1/BB+ (including defaulted issues), a minimum amount outstanding of US\$ 100 million and at least one year to maturity.

**Barclays Capital Brothers Mortgage-Backed Securities Index**

This index includes 15- and 30-year fixed-rate securities backed by mortgage pools of the Government National Mortgage Association (GNMA), Federal Home Loan Mortgage Corporation (FHLMC) and Federal National Mortgage Association (FNMA)

**Barclays Capital Global Aggregate Bond Index**

This index covers the most liquid portion of the global investment-grade fixed-rate bond market, including government, credit and collateralized securities.

**Barclays Capital Emerging Markets Index**

This index includes fixed- and floating-rate USD-denominated debt from emerging markets.

<sup>2</sup>Barclays Capital Fixed Income Indices were formerly the Lehman Brothers Indices.

### S&P National AMT-Free Municipal Bond Index

This index is a broad, comprehensive, market value-weighted index designed to measure the performance of the investment-grade U.S. municipal bonds that are exempt from the Alternative Minimum Tax.

### S&P California AMT-Free Municipal Bond Index

This index is designed to measure the performance of the investment-grade California municipal bonds that are exempt from the Alternative Minimum Tax.

### S&P New York AMT-Free Municipal Bond Index

This index is designed to measure the performance of the investment-grade New York bonds that are exempt from the alternative minimum tax.

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