S&P Dow Jones Indices

A Division of S&P Global

SPIVA® U.S. Focus

Mid-Year 2024 Highlights

Contributor

Anu R. Ganti, CFA Head of U.S. Index Investment Strategy anu.ganti@spglobal.com

In an environment characterized by mega-cap outperformance and the associated rise of market concentration, with the S&P 500[®] Top 50 outperforming the S&P 500 by 5% in the twelve months through September 2024, active managers may find it difficult to keep up with market-capitalization weightings. Despite these headwinds, active equity performance was mixed across the cap spectrum in the first six months of the year. In our largest and most closely watched comparison, 57% of all active large-cap U.S. equity managers underperformed the S&P 500, a relatively better-than-expected result, consistent with the 60% underperformance rate observed in 2023. Meanwhile, only 15% of all active small-cap U.S. equity managers underperformed the <u>S&P SmallCap 600</u>®, perhaps benefiting by tilting toward outperforming large-cap exposures.² Mid-cap managers performed worse than their large- and small-cap peers, with 71% of mid-cap funds underperforming the S&P MidCap 400[®].

Fixed income managers generally fared better in an environment of tightening credit spreads and plentiful opportunities to seek riskier credit exposures, with the iBoxx \$ Liquid High Yield outperforming the iBoxx \$ Liquid Investment Grade by 3% in H1 2024. 80% of General Investment-Grade funds and 61% of High Yield funds outperformed their respective benchmarks. Government bond categories faced a tougher time, with 75% of General Government funds underperforming the iBoxx \$ Domestic Sovereign & Sub-Sovereigns.

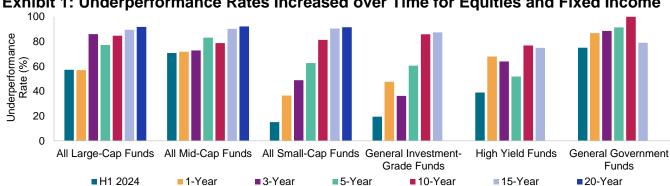


Exhibit 1: Underperformance Rates Increased over Time for Equities and Fixed Income

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

¹ Ganti, Anu R. et al, "SPIVA U.S. Year-End 2023 Scorecard," S&P Dow Jones Indices LLC, March 2024.

Chapman, Florence et al, "SPIVA Global. Mid-Year 2024 Scorecard," S&P Dow Jones Indices LLC, October 2024.

Market Context: H1 2024 and Beyond

Two hallmark themes from the first half of the year were the dominance of large caps, with a 16% performance differential between the S&P 500 and the S&P SmallCap 600, and the outperformance of growth versus value, with a 18% differential between the <u>S&P 500 Growth</u> and the <u>S&P 500 Value</u>. Since then, as the market rally broadened and smaller caps recovered, Q3 2024 witnessed a notable reversal in these trends. The S&P SmallCap 600 outperformed the S&P 500 by 4% and the S&P 500 Value outperformed S&P 500 Growth by 5%.

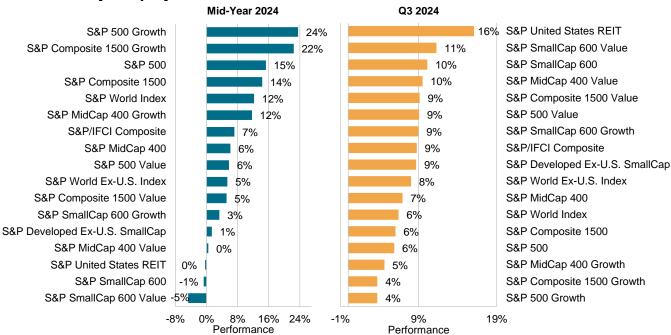


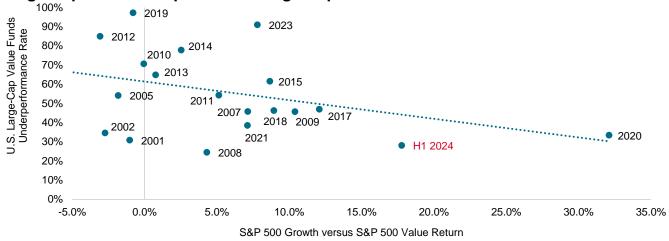
Exhibit 2: Major Equity Performance Reversals from H1 to Q3

Source: S&P Dow Jones Indices LLC. Data as of Sept. 30, 2024. Past performance is no guarantee of future results. Charts are provided for illustrative purposes.

Somewhat counterintuitively at first glance, the outperformance of large caps and growth may have provided a beneficial environment for small-cap and value managers to take on favorable exposures from outside of the benchmark. In addition to the strong results observed for small-cap managers, large-cap value managers also experienced majority outperformance, with only 28% of funds underperforming the S&P 500 Value. Similar results were observed for the Mid-Cap Value and Small-Cap Value categories, where 88% and 94% of funds outperformed the S&P MidCap 400 Value and S&P SmallCap 600 Value, respectively.

Consistent with their small-cap peers, large-cap value managers may have also benefited from style bias tailwinds by tilting toward outperforming large-cap growth, with the S&P 500 Growth posting an H1 2024 return of 23.6%, the highest return among our equity benchmarks reported in Exhibit 2. Exhibit 3 shows that underperformance rates for Large-Cap Value funds tended to improve when the S&P 500 Growth beat the S&P 500 Value.

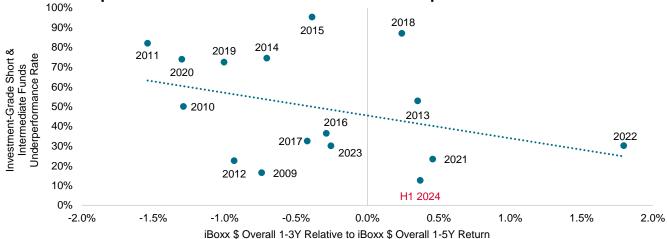
Exhibit 3: Large-Cap Value Funds Underperformance Rates Tended to Improve When Large-Cap Growth Outperformed Large-Cap Value



Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Style bias tailwinds were not limited to equities in the first half of 2024. Investment-Grade Short & Intermediate funds posted the lowest underperformance rate across fixed income categories, with a **13% underperformance rate versus the iBoxx \$ Overall 1-5Y**. In addition to the opportunity to tilt down the credit spectrum toward higher-yielding bonds, which continued from 2023,³ nimble managers in this category who positioned themselves toward the front end of the curve may have been rewarded further in an inverted yield curve environment. Historically, underperformance rates for managers in this category tended to improve when the iBoxx Liquid \$ Overall 1-3Y outperformed the longer-duration benchmark.

Exhibit 4: Investment-Grade Short & Intermediate Funds Underperformance Rates Tended to Improve When the Front End of the Curve Outperformed



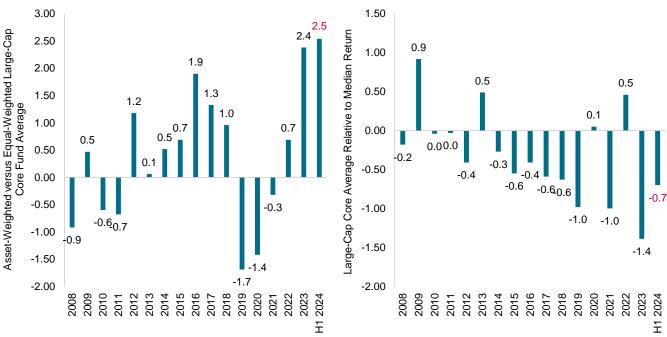
Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

³ "SPIVA U.S. Year-End 2023 Scorecard," op. cit.

Returning to equities, to offer insight on which U.S. equity funds fared better than others, we examine our Large-Cap Core category, where 59% of funds underperformed the S&P 500. The left-hand side of Exhibit 5 compares the asset-weighted to the equal-weighted average fund performance. While we normally expect larger funds to perform better, perhaps due to advantages like greater economies of scale, the difference in H1 2024 of 2.5% between Large-Cap Core's asset-weighted average versus its corresponding equal-weighted average return outpaced even the 2.4% differential observed in 2023.

The right-hand side of Exhibit 5 plots the historical skewness of fund excess returns for the Large-Cap Core category, as measured by comparing the average return to the median return. While 2023 witnessed a dramatically negative skew, it declined by roughly one-half in the first six months of this year, an indication that the level of underperformance among poorly performing funds was less extreme than in 2023.

Exhibit 5: Larger Funds Performed Relatively Better While Fund Skew Was Less Negative



Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2024. Past performance is no guarantee of future results. Charts are provided for illustrative purposes.

Although larger funds significantly outperformed smaller ones, the decline in negative skew may have led to a range of active equity fund performances that was much lower compared to 2023. The H1 2024 interquartile range (the difference in performance separating those funds in the top 25% from those in the bottom 25% of returns) declined by more than one-half in the All Large-Cap category. Consistent with intuition, market volatility also declined alongside lower fund dispersion.

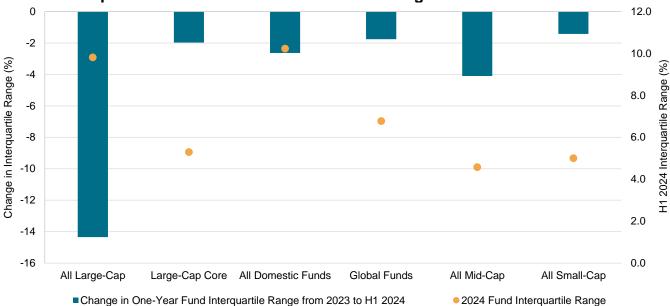


Exhibit 6: Dispersion within Selected Active Fund Categories Narrowed

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Report 1: Mid-Year 2024 Statistics - U.S. Equity Categories

Report 1: Mid-Year 2024 Statistics – U.S. Equity Categories										
Fund Category	Comparison Index	% Under-performing (H1 2024)	Comparison Index Return (%)	Bottom Quartile Return	Asset Weighted Average Return (%)	Median Return	Top Quartile Return	Sample Size	Survivorship (%)	
Global Equity										
Global Funds	S&P World Index	70.75	12.26	5.69	11.07	9.22	13.46	253	96.44	
International Funds	S&P World Ex-U.S Index	56.17	5.36	3.30	5.47	5.03	7.13	413	96.61	
International Small- Cap Funds	S&P Developed Ex- U.S. SmallCap	50.67	1.37	-2.10	2.68	1.48	4.35	75	98.67	
Emerging Markets Funds	S&P/IFCI Composite	46.30	7.18	4.47	7.58	7.90	10.08	216	96.76	
U.S. Equities	·									
All Domestic Funds	S&P Composite 1500 [®]	76.56	14.35	3.74	13.09	7.68	13.98	2197	98.82	
All Large-Cap Funds	S&P 500	57.31	15.29	8.31	15.83	14.00	18.12	773	98.84	
All Mid-Cap Funds	S&P MidCap 400	70.76	6.17	2.05	4.35	4.33	6.62	301	99.00	
All Small-Cap Funds	S&P SmallCap 600	15.02	-0.72	0.54	3.03	2.71	5.54	526	99.05	
All Multi-Cap Funds	S&P Composite 1500	78.56	14.35	6.27	11.25	9.21	13.61	597	98.49	
Large-Cap Growth Funds	S&P 500 Growth	82.14	23.56	16.86	20.74	20.15	22.77	252	98.81	
Large-Cap Core Funds	S&P 500	58.66	15.29	11.31	16.39	14.55	16.61	254	98.82	
Large-Cap Value Funds	S&P 500 Value	28.09	5.79	5.45	8.77	7.51	10.05	267	98.88	
Mid-Cap Growth Funds	S&P MidCap 400 Growth	92.31	11.70	1.80	3.72	4.66	7.61	130	98.46	
Mid-Cap Core Funds	S&P MidCap 400	74.38	6.17	2.94	4.80	4.59	6.22	121	99.17	
Mid-Cap Value Funds	S&P MidCap 400 Value	12.00	0.45	0.82	4.85	3.31	5.89	50	100.00	
Small-Cap Growth Funds	S&P SmallCap 600 Growth	39.57	3.30	2.02	4.68	4.65	7.85	187	99.47	
Small-Cap Core Funds	S&P SmallCap 600	15.75	-0.72	0.45	2.09	2.22	4.28	292	98.63	
Small-Cap Value Funds	S&P SmallCap 600 Value	6.38	-4.72	-1.77	0.52	0.32	2.05	47	100.00	
Multi-Cap Growth Funds	S&P Composite 1500 Growth	81.63	22.44	8.16	15.67	14.18	20.12	147	97.28	
Multi-Cap Core Funds	S&P Composite 1500	76.92	14.35	8.23	11.43	11.73	14.17	221	98.19	
Multi-Cap Value Funds	S&P Composite 1500 Value	28.38	5.17	4.75	7.59	7.21	8.97	229	99.56	
Real Estate Funds	S&P United States REIT	71.05	-0.35	-2.48	-1.16	-1.48	-0.10	76	97.37	

Sources: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2024. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 2: Mid-Year 2024 Statistics - U.S. Fixed Income Categories

Report 2: Mid-Year 20)24 Statistics – U.S	o. <u>F</u> ixed	ıncoı	me Ca	tegorie	25			
Fund Category	Comparison Index	% Under-performing (H1 2024)	Comparison Index Return (%)	Bottom Quartile Return	Asset Weighted Average Return (%)	Median Return	Top Quartile Return	Sample Size	Survivorship (%)
U.S. Fixed Income									
General Government Funds	iBoxx \$ Domestic Sovereign & Sub- Sovereigns	75.00	0.17	-1.49	-1.35	-0.76	0.40	40	95.00
Government Intermediate Funds	iBoxx \$ Domestic Sovereigns & Sub- Sovereigns 1-10Y	94.74	0.73	-0.90	-0.82	-0.53	-0.25	19	100.00
Government Short & Short- Intermediate Funds	iBoxx \$ Domestic Sovereigns & Sub- Sovereigns 1-5Y	48.28	1.09	0.53	1.11	1.10	1.88	29	100.00
General Investment-Grade Funds	iBoxx \$ Liquid Investment Grade	19.51	-1.20	-0.84	-1.17	-0.19	0.21	82	97.56
Investment-Grade Intermediate Funds	Bloomberg U.S. Aggregate	28.03	-0.71	-0.72	-0.21	-0.35	-0.08	157	98.73
Investment-Grade Short & Intermediate Funds	iBoxx \$ Overall 1-5Y	12.57	1.11	1.44	1.56	1.76	2.12	167	97.60
General Bond Funds	iBoxx \$ Overall	38.46	-0.08	-0.37	0.40	0.35	1.48	39	97.44
High Yield Funds	iBoxx \$ Liquid High Yield	38.95	2.28	1.98	2.85	2.50	3.12	172	97.09
Mortgage-Backed Securities Funds	Bloomberg US Aggregate Securitized - MBS	34.85	-0.98	-1.16	-0.50	-0.44	1.62	66	100.00
Core Plus Bond Funds	iBoxx \$ Liquid Investment Grade	8.57	-1.20	-0.53	-0.27	-0.04	0.23	105	98.10
Inflation-Linked Funds	iBoxx TIPS Inflation- Linked	51.92	0.75	0.51	0.59	0.74	1.14	52	98.08
Global Income Funds	Bloomberg Global Aggregate	28.85	-3.16	-3.50	-2.29	-0.74	0.56	104	97.12
Emerging Market Debt Funds	Bloomberg Emerging Markets USD Aggregate	45.45	2.22	1.72	2.65	2.62	3.17	55	96.36
General Municipal Debt Funds	S&P National AMT- Free Municipal Bond Index	13.33	-0.26	0.05	0.69	0.61	1.07	90	97.78
California Municipal Debt Funds	S&P California AMT- Free Municipal Bond Index	2.86	-0.42	0.22	0.66	0.64	1.09	35	100.00
New York Municipal Debt Funds	S&P New York AMT- Free Municipal Bond Index	11.54	-0.23	0.26	0.26	0.38	0.69	26	96.15
Loan Participation Funds	Markit iBoxx USD Leveraged Loans	95.71	4.59	3.06	3.52	3.51	3.89	70	100.00

Sources: S&P Dow Jones Indices LLC, CRSP, Bloomberg LLC. Data as of June 30, 2024. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3: Fund Underperformance Rates - U.S. Equity Categories

Report 3: Fund Underperformance Rates – 0.5. Equity Categories									
Fund Category	Comparison Index	YTD (%)	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)	15-Year (%)	20-Year (%)	
Global Equity									
Global Funds	S&P World Index	70.75	76.61	92.17	86.42	87.80	92.59	n/a	
International Funds	S&P World Ex-U.S. Index	56.17	71.25	81.68	79.25	81.48	86.85	n/a	
International Small- Cap Funds	S&P Developed Ex-U.S. SmallCap	50.67	57.69	61.04	56.98	73.44	65.45	72.73	
Emerging Markets Funds	S&P/IFCI Composite	46.30	63.47	72.59	72.17	86.21	87.77	92.31	
U.S. Equities									
All Domestic Funds	S&P Composite 1500	76.56	76.17	90.09	85.91	90.08	93.42	94.31	
All Large-Cap Funds	S&P 500	57.31	57.05	86.08	77.26	84.71	89.54	91.77	
All Mid-Cap Funds	S&P MidCap 400	70.76	71.77	72.82	83.17	78.75	90.27	92.17	
All Small-Cap Funds	S&P SmallCap 600	15.02	36.50	48.82	62.73	81.31	90.50	91.60	
All Multi-Cap Funds	S&P Composite 1500	78.56	74.30	90.79	84.59	89.16	91.61	93.16	
Large-Cap Growth Funds	S&P 500 Growth	82.14	50.21	80.80	78.11	82.70	94.39	95.05	
Large-Cap Core Funds	S&P 500	58.66	63.67	78.24	78.85	95.95	97.14	92.84	
Large-Cap Value Funds	S&P 500 Value	28.09	58.08	88.64	86.31	91.33	94.59	89.04	
Mid-Cap Growth Funds	S&P MidCap 400 Growth	92.31	93.70	93.28	88.72	74.27	89.66	92.90	
Mid-Cap Core Funds	S&P MidCap 400	74.38	64.66	61.36	80.19	88.52	93.55	95.16	
Mid-Cap Value Funds	S&P MidCap 400 Value	12.00	33.33	47.69	56.25	87.84	88.19	89.89	
Small-Cap Growth Funds	S&P SmallCap 600 Growth	39.57	75.86	79.70	75.92	81.07	91.60	94.95	
Small-Cap Core Funds	S&P SmallCap 600	15.75	29.30	35.27	58.78	86.77	94.22	93.69	
Small-Cap Value Funds	S&P SmallCap 600 Value	6.38	6.00	12.50	40.21	79.13	85.35	86.96	
Multi-Cap Growth Funds	S&P Composite 1500 Growth	81.63	76.13	86.56	84.53	88.78	93.24	93.45	
Multi-Cap Core Funds	S&P Composite 1500	76.92	73.13	89.59	87.76	96.39	95.12	94.48	
Multi-Cap Value Funds	S&P Composite 1500 Value	28.38	46.15	90.55	84.09	94.07	94.19	89.85	
Real Estate Funds	S&P United States REIT	71.05	88.31	100.00	76.19	80.00	89.32	89.61	

Sources: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2024. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 4: Fund Underperformance Rates - U.S. Fixed Income Categories

report 4. I alia e	maer per formance	itates	U.U. I IXEC		Categorie		
Fund Category	Comparison Index	YTD (%)	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)	15-Year (%)
U.S. Fixed Income							
General Government Funds	iBoxx \$ Domestic Sovereign & Sub- Sovereigns	75.00	86.84	88.57	91.43	100.00	79.07
Government Intermediate Funds	iBoxx \$ Domestic Sovereigns & Sub- Sovereigns 1-10Y	94.74	94.44	95.00	95.45	93.75	90.91
Government Short & Short-Intermediate Funds	iBoxx \$ Domestic Sovereigns & Sub- Sovereigns 1-5Y	48.28	68.97	60.71	85.71	93.02	98.11
General Investment- Grade Funds	iBoxx \$ Liquid Investment Grade	19.51	47.56	36.26	60.67	85.86	87.50
Investment-Grade Intermediate Funds	Bloomberg U.S. Aggregate	28.03	31.17	60.00	47.59	69.03	59.69
Investment-Grade Short & Intermediate Funds	iBoxx \$ Overall 1-5Y	12.57	15.95	23.75	31.65	57.24	70.21
General Bond Funds	iBoxx \$ Overall	38.46	23.53	43.18	40.00	64.62	62.50
High Yield Funds	iBoxx \$ Liquid High Yield	38.95	68.02	64.02	51.81	76.92	74.87
Mortgage-Backed Securities Funds	Bloomberg US Aggregate Securitized - MBS	34.85	44.44	46.15	54.90	78.57	75.00
Core Plus Bond Funds	iBoxx \$ Liquid Investment Grade	8.57	61.00	21.28	63.10	93.55	-
Inflation-Linked Funds	iBoxx TIPS Inflation- Linked	51.92	42.31	46.81	65.31	93.33	96.55
Global Income Funds	Bloomberg Global Aggregate	28.85	32.71	42.00	52.00	63.70	56.84
Emerging Market Debt Funds	Bloomberg Emerging Markets USD Aggregate	45.45	25.00	53.13	67.69	91.38	100.00
General Municipal Debt Funds	S&P National AMT- Free Municipal Bond Index	13.33	24.72	90.48	72.29	64.84	59.09
California Municipal Debt Funds	S&P California AMT- Free Municipal Bond Index	2.86	8.82	71.88	55.56	48.78	52.27
New York Municipal Debt Funds	S&P New York AMT- Free Municipal Bond Index	11.54	7.69	96.30	75.00	71.88	68.42
Loan Participation Funds	Markit iBoxx USD Leveraged Loans	95.71	92.86	95.00	96.72	98.11	100.00

Sources: S&P Dow Jones Indices LLC, CRSP, Bloomberg LLC. Data as of June 30, 2024. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Appendix: A Unique Scorecard for the Active Versus Passive Debate

For over two decades, S&P Dow Jones Indices' <u>SPIVA Scorecards</u> have compared the performance of actively managed funds to appropriate benchmarks. Initially covering just U.S.-domiciled funds, our scorecards now cover funds operating in markets from Australia to Chile. They are rooted in the following fundamental principles:

- 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.
- More than Just Underperformance Rates: As well as the most-quoted statistics
 of percentage underperformance rates, SPIVA Scorecards also include additional
 data on average fund returns, quartile ranges, survivorship rates and other
 factors—including the market context—to offer a robust perspective on active
 performance.
- 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, it excludes index funds, leveraged and inverse funds, and other index-linked products.

Further information on the Scorecard's methodology, including the fund categorizations and details of each reported statistic, as well as more data on fund performances around the world, may be found below:

SPIVA Global Mid-Year 2024 Scorecard Learn More about SPIVA

SPIVA Around the World: Equity SPIVA Around the World: Fixed Income

SPIVA Scorecards: An Overview SPIVA on Indexology® Blog

General Disclaimer

© 2024 S&P Dow Jones Indices. All rights reserved. S&P, S&P 500, SPX, SPY, The 500, US500, US 30, S&P 100, S&P COMPOSITE 1500, S&P 400, S&P MIDCAP 400, S&P 600, S&P SMALLCAP 600, S&P GIVI, GLOBAL TITANS, DIVIDEND ARISTOCRATS, DIVIDEND MONARCHS, BUYBACK ARISTOCRATS, SELECT SECTOR, S&P MAESTRO, S&P PRISM, S&P STRIDE, GICS, SPIVA, SPDR, INDEXOLOGY, iTraxx, iBoxx, ABX, ADBI, CDX, CMBX, LCDX, MBX, MCDX, PRIMEX, TABX, HHPI, IRXX, I-SYND, SOVX, CRITS, CRITR are registered trademarks of S&P Global, Inc. ("S&P Global") or its affiliates. DOW JONES, DJIA, THE DOW and DOW JONES INDUSTRIAL AVERAGE are trademarks of Dow Jones Trademark Holdings LLC ("Dow Jones"). These trademarks together with others have been licensed to S&P Dow Jones Indices LLC. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. This document does not constitute an offer of services in jurisdictions where S&P Dow Jones Indices LLC, S&P Global, Dow Jones or their respective affiliates (collectively "S&P Dow Jones Indices is impersonal and not tailored to the needs of any person, entity or group of persons. S&P Dow Jones Indices receives compensation in connection with licensing its indices to third parties and providing custom calculation services. Past performance of an index is not an indication or guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be available through investable instruments based on that index. S&P Dow Jones Indices does not sponsor, endorse, sell, promote or manage 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. S&P Dow Jones Indices makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. Index performance does not reflect trading costs, management fees or expenses. S&P Dow Jones Indices makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. S&P Dow Jones Indices is not an investment adviser, commodity trading advisor, commodity pool operator, broker dealer, fiduciary, promoter" (as defined in the Investment Company Act of 1940, as amended), "expert" as enumerated within 15 U.S.C. § 77k(a) or tax advisor. Inclusion of a security, commodity, crypto currency or other asset within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, commodity, crypto currency or other asset, nor is it considered to be investment advice or commodity trading advice.

Closing prices for S&P Dow Jones Indices' US benchmark indices are calculated by S&P Dow Jones Indices based on the closing price of the individual constituents of the index as set by their primary exchange. Closing prices are received by S&P Dow Jones Indices from one of its third party vendors and verified by comparing them with prices from an alternative vendor. The vendors receive the closing price from the primary exchanges. Real-time intraday prices are calculated similarly without a second verification

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof ("Content") may be modified, reverse-engineered, reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P Dow Jones Indices. The Content shall not be used for any unlawful or unauthorized purposes. S&P Dow Jones Indices and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Global keeps certain activities of its various divisions and business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions and business units of S&P Global may have information that is not available to other business units. S&P Global has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate or otherwise address.

The Global Industry Classification Standard (GICS®) was developed by and is the exclusive property and a trademark of S&P and MSCI. Neither MSCI, S&P nor any other party involved in making or compiling any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.