

# SPIVA<sup>®</sup> After-Tax Scorecard: The Effect of Taxes on Indices and Active Funds

## Contributors

**Joseph Nelesen, PhD**  
Head of Specialists  
Index Investment Strategy  
[joseph.nelesen@spglobal.com](mailto:joseph.nelesen@spglobal.com)

**Davide Di Gioia**  
Head of SPIVA  
Index Investment Strategy  
[davide.di.gioia@spglobal.com](mailto:davide.di.gioia@spglobal.com)

## Summary

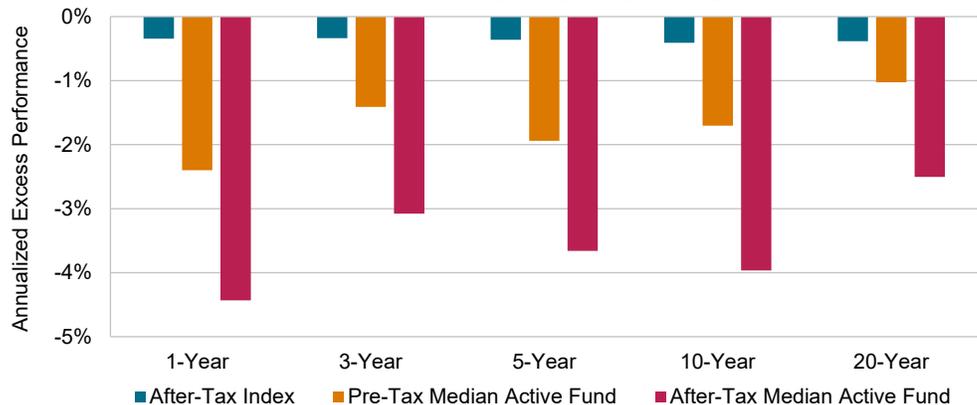
*"I'm putting all my money in taxes. They're sure to go up."*

*Bob Hope*

Since 2002, S&P Dow Jones Indices (S&P DJI) has evaluated index versus active fund performance through the SPIVA Scorecards. In this report, we revisit the broad U.S. domestic equity categories with an additional layer of analysis, **comparing the putative after-tax performance of indices and active funds.**

The average cumulative effects of taxes on investor returns are summarized in Exhibit 1 for the Large-Cap Core fund category. After tax, the **median active fund trailed the S&P 500<sup>®</sup> over every time horizon, by up to 4.4% annually** (see Exhibit 1).

**Exhibit 1: Annualized Performance versus the S&P 500**



Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

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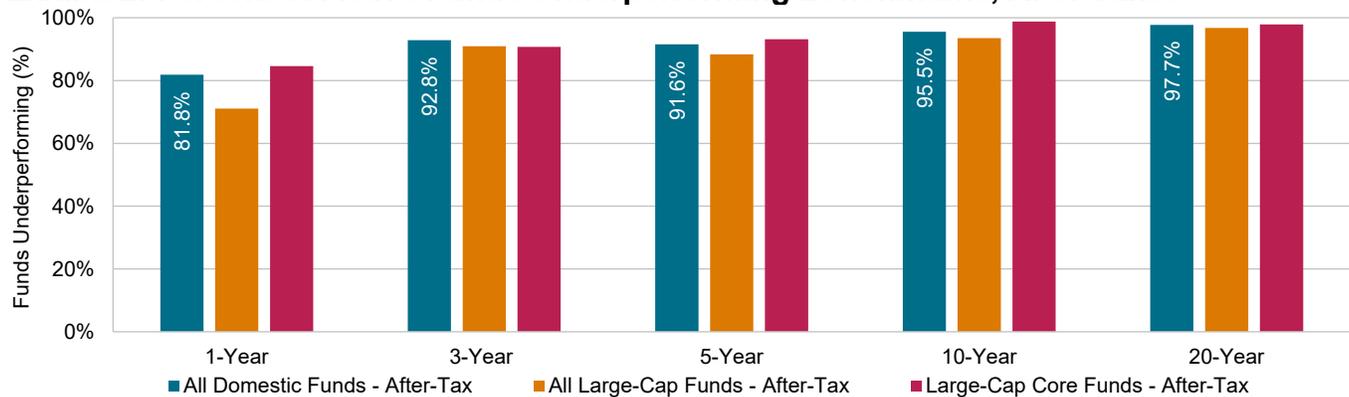
# Introduction

In this third-annual edition of the SPIVA After-Tax Scorecard, we again examine the impact of taxable mutual fund distributions on investor outcomes. Although every year brings its own unique challenges, markets in 2024 shared some similarities with 2023: the S&P 500 rose more than 20%, valuations and concentration were elevated relative to historical averages and active managers engaged in heavy trading, as evidenced by significant distributions of capital gains. As shown in the [SPIVA U.S. Year-End 2024 Scorecard](#), such turnover did not, in the aggregate, equate to majority outperformance. A passive, capitalization-weighted index approach to equities continued to present a hurdle most managers could not overcome as large stocks with benchmark-beating performances continued to grow in size. Despite the tendency of many active managers to take profits by selling seemingly overpriced securities, more than 20 years of S&P DJI’s [SPIVA Scorecards](#) illustrate that identifying the ideal time to sell in order to harness alpha is exceedingly difficult.

The challenges of effective market timing and stock selection are not the sole reasons to favor the patience inherent in indices such as the S&P 500. Further justification for an indexed strategy can be found in the potential tax implications tied to selling long-held profitable positions, as well as gains generated from short-term sales that are subject to an even higher tax rate. Consequently, it may be reasonable to argue that surpassing broad, capitalization-weighted indices becomes even more difficult when considering the tax consequences of active trading.

The existence of a common standard for reporting after-tax returns in U.S. mutual funds allows for measurement of tax impact on performance across selected categories from the traditional SPIVA Scorecards. Exhibit 2 highlights selected statistics from the detailed analyses that follow, confirming the relatively **high long-term after-tax underperformance rates for actively managed U.S. domestic equity mutual funds**.

**Exhibit 2: Percent of Active Funds Underperforming Benchmarks, After Taxes**



Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

# Methodology

To produce this scorecard, actively managed funds were selected and screened via the same sources and analytical engine underlying S&P DJI's SPIVA U.S. Scorecards, including the selection of fund share classes and assignment into fund categories. Accordingly, the funds represented in this report are precisely those whose aggregate pre-tax statistics were reported in the [SPIVA U.S. Year-End 2024 Scorecard](#).

After-tax fund performance is calculated on a pre-liquidation basis using the highest historically applicable individual federal marginal income and capital gains tax rates in place at each point in time.<sup>1</sup> We rely on a convention established in 2001, when the Securities and Exchange Commission (SEC) introduced rules requiring fund managers to annually report after-tax performance using a standardized treatment for dividends, capital gains and other fund distributions.<sup>2</sup> We apply this methodology by multiplying the taxable distributions issued by actively managed U.S. equity mutual funds by  $1-t$  (where  $t$  equals the relevant tax rate applicable to the distribution type at the date of distribution) before calculating performance, assuming immediate reinvestment of the remaining amounts.

Seeking to make “apples-to-apples” comparisons, we apply an equivalent calculation to generate a hypothetical after-tax performance for each comparison benchmark. After-tax index performance is calculated using historically applicable qualified dividend tax rates applied to historical index dividends on a daily basis, assuming immediate reinvestment of the remaining amounts. State and local tax liabilities, alternative minimum tax or phaseouts of certain tax credits, exemptions and other deductions are excluded.

While the traditional SPIVA Scorecard offers analysis on a wide range of fund categories and benchmarks, we strictly limit our analysis here to fund categories whose benchmarks are broad-based and market-capitalization weighted (and thus have a relatively low turnover by design). In particular, we only report statistics for those fund categories benchmarked to the S&P 500 or [S&P Composite 1500<sup>®</sup>](#) in the SPIVA U.S. Scorecard. Taxable distributions made by index funds tracking these benchmarks have not proved typically frequent or material, which allows for viable comparisons between active fund performances and after-tax benchmark returns calculated in this manner.<sup>3</sup>

<sup>1</sup> The top marginal income tax rate varied between 35.0% and 39.6%, and long-term capital gains rates varied between 15% and 20% over the 20-year period of analysis in this scorecard.

<sup>2</sup> This document calculates pre-liquidation performance only, in consideration of different individual tax scenarios. For more details on disclosure of after-tax mutual fund returns, see <https://www.sec.gov/rules/2001/09/disclosure-mutual-fund-after-tax-returns>.

<sup>3</sup> Admittedly, it has historically proved possible for many index-linked funds and ETFs tracking benchmarks with higher turnover to limit their taxable distributions.

# Analysis of After-Tax Returns

*“The best way to teach your kids about taxes is by eating 30% of their ice cream.”*

*Bill Murray*

Over the 1-, 3-, 5-, 10-, 15- and 20-year periods studied, the added effect of taxes resulted in higher rates of active fund underperformance on an after-tax versus pre-tax basis. Exhibit 3 details the underperformance rates of actively managed funds, as compared to the pre-tax underperformance rates previously reported in the SPIVA U.S. Year-End 2024 Scorecard.

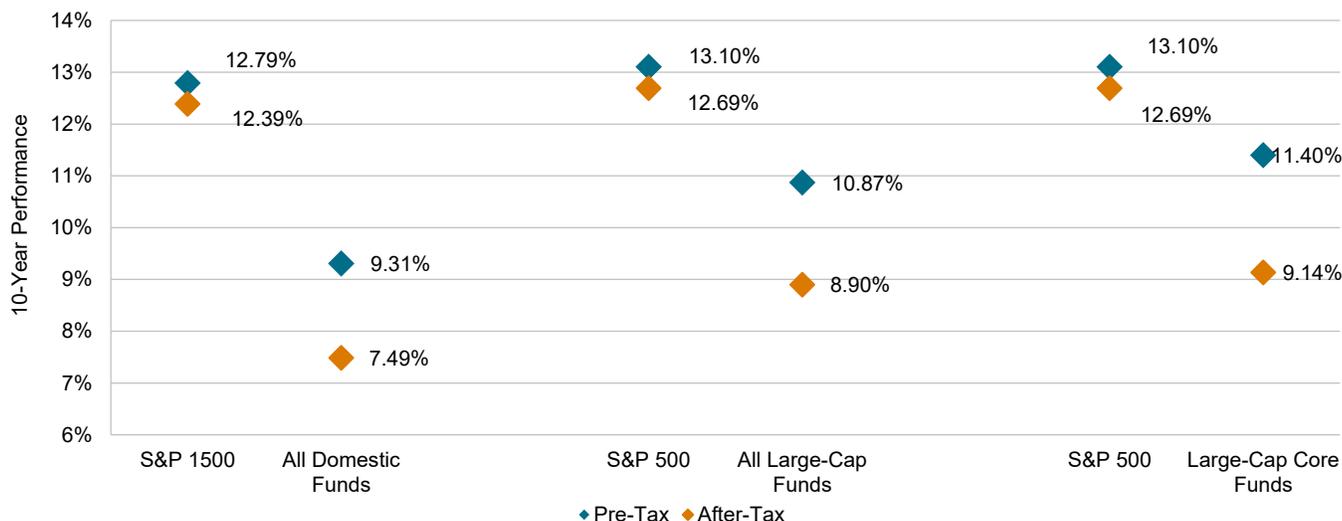
## Exhibit 3: Percentage of Funds Underperforming Benchmarks Before and After Taxes

SPIVA Category	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)	15-Year (%)	20-Year (%)
All Domestic Funds	78.65	87.65	84.73	89.66	93.19	94.11
<b>All Domestic Funds - After-Tax</b>	<b>81.85</b>	<b>92.84</b>	<b>91.56</b>	<b>95.54</b>	<b>97.79</b>	<b>97.73</b>
All Large-Cap Funds	65.24	84.96	76.26	84.34	89.50	91.99
<b>All Large-Cap Funds - After-Tax</b>	<b>71.08</b>	<b>90.92</b>	<b>88.33</b>	<b>93.53</b>	<b>96.91</b>	<b>96.77</b>
Large-Cap Core Funds	75.89	82.30	80.37	96.62	97.07	93.27
<b>Large-Cap Core Funds - After-Tax</b>	<b>84.58</b>	<b>90.71</b>	<b>93.15</b>	<b>98.77</b>	<b>99.47</b>	<b>97.86</b>

Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Significant differences also emerged in the degree to which adjusting for tax affected the median returns of actively managed funds and their benchmarks, respectively. Adjusting the S&P Composite 1500 and S&P 500 for tax resulted in a less than 0.5% annual impact over all the time periods studied, while, for example, the **median after-tax 10-year annualized returns for All Domestic funds, All Large-Cap funds and Large-Cap Core funds lagged pre-tax medians by 1.8%, 2.0% and 2.3%, respectively.** These figures are illustrated in Exhibit 4.

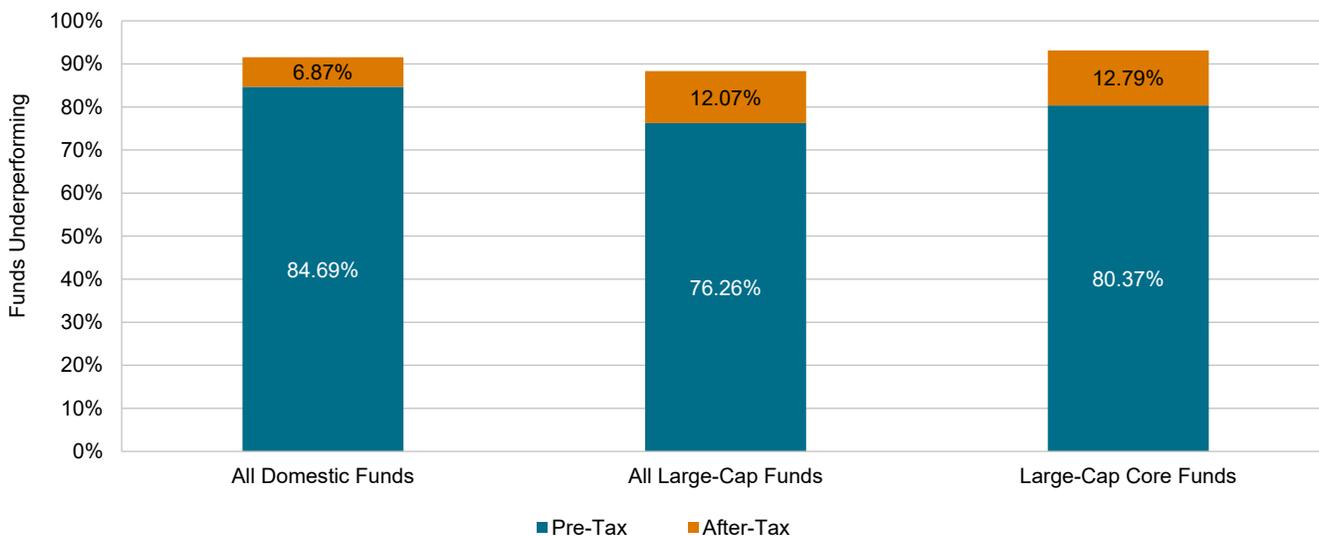
### Exhibit 4: Median Pre-Tax and After-Tax 10-Year Annualized Performance



Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Examining differences in average pre-tax and after-tax underperformance rates over various periods, we find that the five-year period ending December 2024 exhibited the largest increases in active fund underperformance after adjusting for taxes (see Exhibit 5).

### Exhibit 5: Tax Impact on Five-Year Active Fund Underperformance Rates

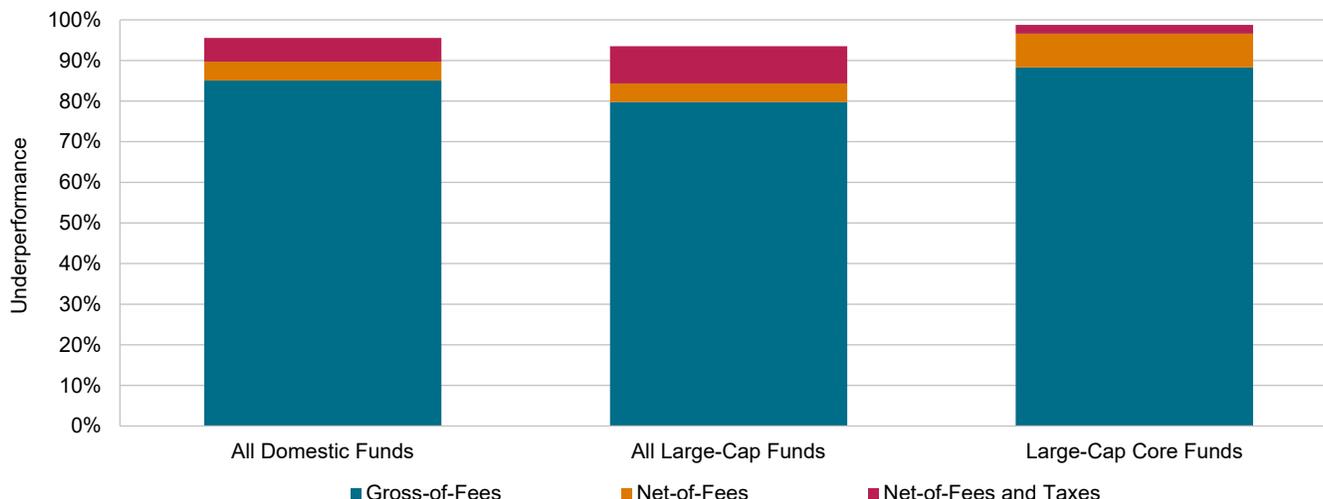


Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Expanding upon our results comparing pre- and after-tax underperformance rates, Exhibit 6 incorporates additional data from the [SPIVA Institutional Year-End 2024 Scorecard](#), which compares underperformance rates of actively managed funds both before and after fees. For the broad All Domestic equity category (versus the S&P Composite 1500), and the narrower All Large-Cap and Large-Cap Core categories (both versus the S&P 500), **Exhibit 6**

summarizes the combined impact of active security selection, fees *and* taxes on the prospects for outperformance over a 10-year horizon.

### Exhibit 6: 10-Year Underperformance Rates



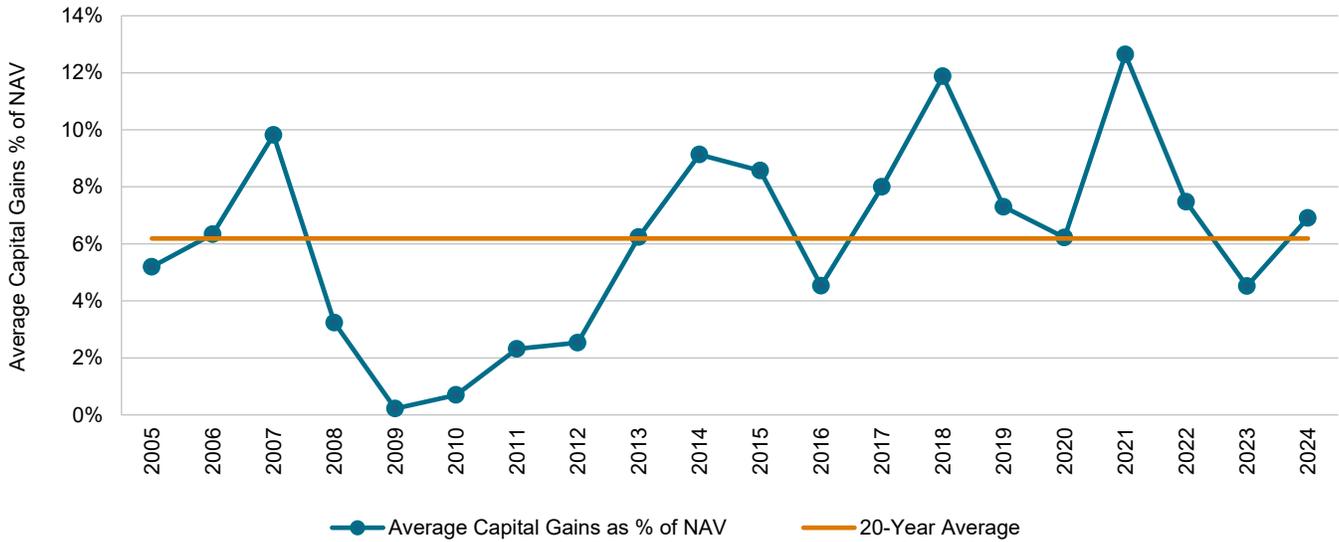
Sources: S&P Dow Jones Indices LLC, CRSP. Includes data from Report 1, as well as Exhibit 9 in the SPIVA Institutional Year-End 2024 Scorecard. Gross- and net-of-fees underperformance rates as compared to total return indices in USD, net of fees and taxes underperformance calculated versus after-tax index performance. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

## Drivers of After-Tax Performance Differentials

The clearest explanation for the differences between the pre-tax and after-tax performance of active funds lies in the possibility that there were times when active funds had higher turnover, resulting in larger taxable capital gains distributions, which in turn reduced the after-tax returns. To illustrate the variation in capital gains over time, we sum each eligible fund's calendar-year capital gains and divide that total by the fund's average net asset value (NAV) over the same period, before calculating the cross-sectional annual averages.<sup>4</sup> The equal-weighted annual average of these distribution rates is shown in Exhibit 7 for funds in the All Domestic Funds category.

<sup>4</sup> "NAV" or Net Asset Value represents the U.S. dollar value per share of each share in the respective fund. Eligible funds include all active funds in the All Domestic Funds category that paid a capital gains distribution in any calendar year from 2005 through 2024.

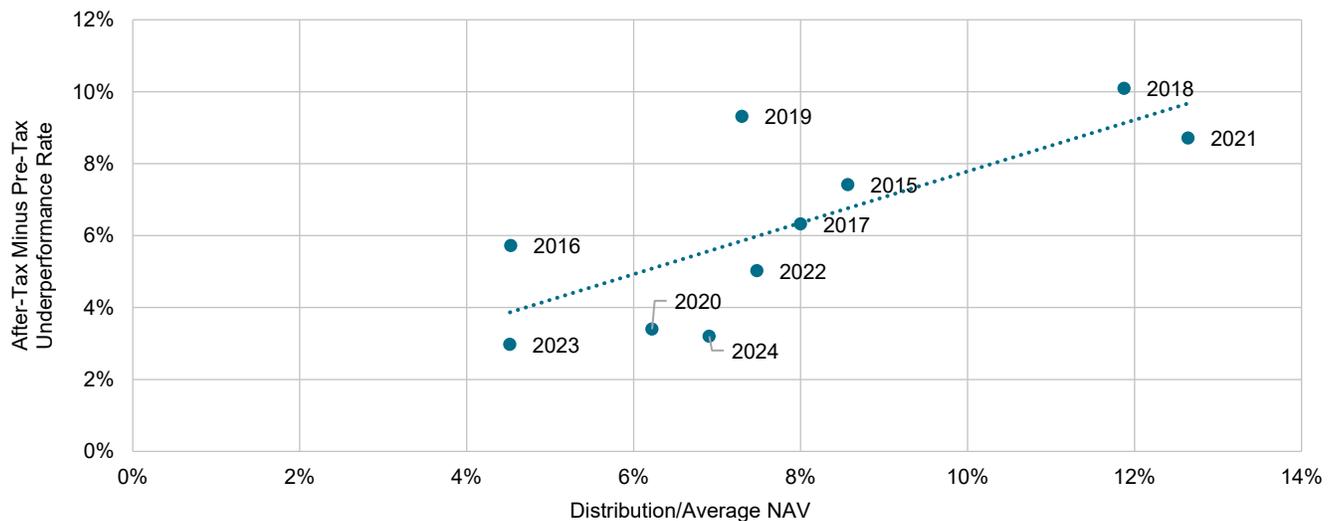
**Exhibit 7: Average Ratio of Fund-Level Calendar Year Capital Gains versus NAV**



Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Exhibit 8 illustrates the relationship between the rate of capital gains generation and after-tax active outperformance rates across All Domestic Funds over the last 10 years, by comparing the series of Exhibit 7 (on the x-axis) to the annual difference in before- and after-tax underperformance rates of actively managed funds (as usual, taken in comparison to the standard S&P 1500® and a tax-adjusted version of the index, respectively). Exhibit 8 illustrates that in years when distribution rates were higher, there was an increase in after-tax rates of underperformance.

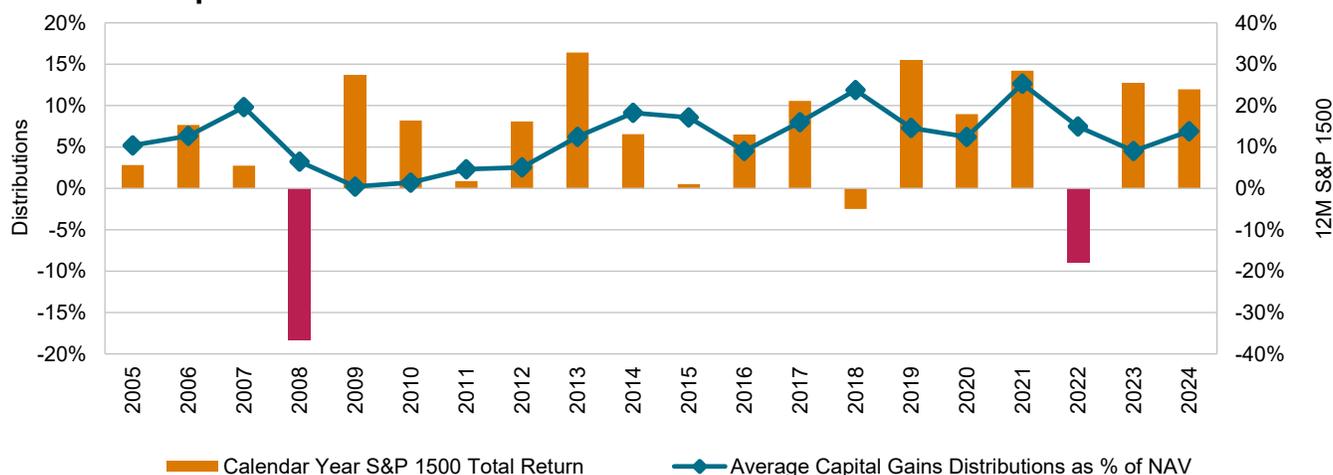
**Exhibit 8: Capital Gains % of NAV and After-Tax versus Pre-Tax Underperformance Rates**



Sources: S&P Dow Jones Indices LLC, CRSP. Data for funds in the All Domestic Funds category as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

The challenge of tax-drag on the relative performance of active funds is compounded by the timing of capital gains distributions, which poses a particularly bleak scenario for taxable investors. Over the last two decades, the interplay of declining markets and fund redemptions, which are often interconnected, has frequently **compelled active managers to realize gains, resulting in tax liabilities for investors during years when fund holders were already suffering from performance downturns**. As shown in Exhibit 9, a higher average proportion of capital gains—7.5% of NAV—was distributed during the three calendar years when the overall market experienced declines, compared to an average of 6.0% of NAV in all other years since 2005.

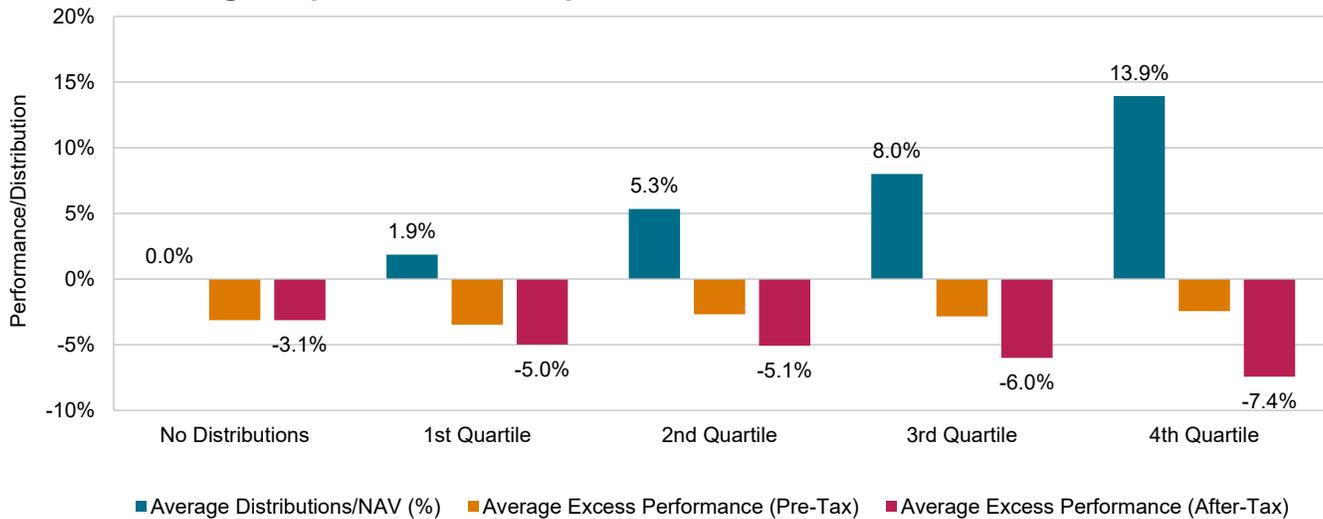
**Exhibit 9: Capital Gains % of NAV and Annual S&P 1500 Performance**



Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Finally, for a more direct analysis of the relationship between various degrees of capital gains and after-tax performance, we revisited 2024 calendar year results. Within the Large-Cap Core category, we divided all funds into five groups, ranging from a group of funds that made no capital gains distributions during the year, to quartiles based on distribution rates (ranging from 1<sup>st</sup> Quartile funds that distributed the lowest gains relative to their average NAV, to 4<sup>th</sup> Quartile funds that distributed the highest gains relative to their average NAV). In Exhibit 10, we show what appears to be a direct relationship between rates of capital gains and magnitudes of underperformance. More precisely, funds that generated the highest gains trailed the S&P 500 by the largest margins on an after-tax basis. If capital gains distributions are an indication of trading activity, the implication is that **funds which engaged in more active trading generated worse results than their peers, when taxes are considered**.

**Exhibit 10: Large-Cap Core Funds Capital Gains Distributions and Relative Performance**



Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

## Conclusions

Over the last two decades, S&P DJI’s SPIVA Scorecards have provided insights into the likelihood of selecting funds that outperform both before and after fees. At the same time, many investors have increasingly utilized indices as vital components for vehicles like ETFs and [direct indexing](#) strategies that leverage S&P DJI benchmarks, which may also lead to different tax implications compared to traditional active mutual funds. However, due to the variability in individual circumstances, data on after-tax returns has been less accessible. The findings in this third annual edition of the SPIVA After-Tax Scorecard continue to reveal a more accurate representation of the experiences of numerous investors, for whom taxes are an unavoidable factor.

Even prior to considering taxes, active managers in broad U.S. equity categories have frequently found it difficult to match the performance of capitalization-weighted benchmarks such as the S&P 500. While some have succeeded, investors may not be able to identify those few managers with the [persistent](#) potential to outperform the market, and participation in that outperformance also requires the hope that their eventual returns are not significantly eroded by taxes.

The results of this scorecard emphasize that, at least within broad U.S. equities and over the past 20 years, taxes have had a substantial impact on the average returns of actively managed funds, making the challenge of selecting an active fund that outperformed after tax theoretically possible, but statistically highly unlikely.

# Reports

## Report 1: Percentage of U.S. Equity Funds Underperforming Their Benchmarks (Based on Pre-Tax and After-Tax Absolute Return)

SPIVA Category	Comparison Index	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)	15-Year (%)	20-Year (%)
All Domestic Funds	S&P Composite 1500	78.65	87.65	84.73	89.66	93.19	94.11
All Domestic Funds - After-Tax	S&P Composite 1500 - After-Tax	81.85	92.84	91.56	95.54	97.79	97.73
All Large-Cap Funds	S&P 500	65.24	84.96	76.26	84.34	89.50	91.99
All Large-Cap Funds - After-Tax	S&P 500 - After-Tax	71.08	90.92	88.33	93.53	96.91	96.77
Large-Cap Core Funds	S&P 500	75.89	82.30	80.37	96.62	97.07	93.27
Large-Cap Core Funds - After-Tax	S&P 500 - After-Tax	84.58	90.71	93.15	98.77	99.47	97.86

Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

## Report 2: Average U.S. Equity Fund Performance (Equal-Weighted)

Category	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)	20-Year (%)
S&P Composite 1500	23.95	8.54	14.13	12.79	10.32
All Domestic Funds	17.24	4.42	10.42	9.47	8.04
S&P Composite 1500 - After-Tax	23.61	8.20	13.77	12.39	9.94
All Domestic Funds - After-Tax	15.64	2.83	8.58	7.85	6.11
S&P 500	25.02	8.94	14.52	13.10	10.35
All Large-Cap Funds	21.32	6.38	11.72	10.38	8.48
S&P 500 - After-Tax	24.67	8.60	14.16	12.69	9.97
All Large-Cap Funds - After-Tax	19.71	4.75	9.98	8.88	6.68
S&P 500	25.02	8.94	14.52	13.10	10.35
Large-Cap Core Funds	21.13	6.57	12.03	10.26	8.66
S&P 500 - After-Tax	24.67	8.60	14.16	12.69	9.97
Large-Cap Core Funds - After-Tax	19.59	5.41	10.59	8.95	6.66

Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Returns shown are annualized for periods greater than one year. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

**Report 3: Pre-Tax and After-Tax Quartile Breakpoints of U.S. Equity Funds**

<b>Fund Category</b>	<b>Third Quartile (%)</b>	<b>Second Quartile (%)</b>	<b>First Quartile (%)</b>
<b>1-Year</b>			
All Domestic Funds Pre-Tax	10.98	15.54	23.24
All Domestic Funds After-Tax	9.25	13.83	21.37
All Large-Cap Funds Pre-Tax	14.89	21.68	27.63
All Large-Cap Funds After-Tax	12.81	20.01	25.89
Large-Cap Core Funds Pre-Tax	18.18	22.62	24.96
Large-Cap-Core Funds After-Tax	16.10	20.58	23.43
<b>3-Year</b>			
All Domestic Funds Pre-Tax	2.09	5.01	7.43
All Domestic Funds After-Tax	0.49	3.34	5.82
All Large-Cap Funds Pre-Tax	4.81	6.90	8.41
All Large-Cap Funds After-Tax	3.03	5.14	7.01
Large-Cap Core Funds Pre-Tax	5.29	7.53	8.71
Large-Cap-Core Funds After-Tax	3.83	5.86	7.49
<b>5-Year</b>			
All Domestic Funds Pre-Tax	7.93	10.06	12.96
All Domestic Funds After-Tax	6.01	8.21	11.13
All Large-Cap Funds Pre-Tax	9.24	12.06	14.77
All Large-Cap Funds After-Tax	7.20	9.98	12.90
Large-Cap Core Funds Pre-Tax	11.15	12.58	14.35
Large-Cap-Core Funds After-Tax	8.92	10.86	12.52
<b>10-Year</b>			
All Domestic Funds Pre-Tax	7.89	9.31	11.78
All Domestic Funds After-Tax	5.81	7.49	9.83
All Large-Cap Funds Pre-Tax	8.68	10.87	12.99
All Large-Cap Funds After-Tax	6.70	8.90	11.05
Large-Cap Core Funds Pre-Tax	9.92	11.40	12.13
Large-Cap-Core Funds After-Tax	7.79	9.14	10.42
<b>20-Year</b>			
All Domestic Funds Pre-Tax	7.36	8.48	9.64
All Domestic Funds After-Tax	5.86	6.96	8.29
All Large-Cap Funds Pre-Tax	7.58	9.04	10.34
All Large-Cap Funds After-Tax	6.21	7.61	8.93
Large-Cap Core Funds Pre-Tax	8.39	9.33	10.15
Large-Cap-Core Funds After-Tax	7.02	7.85	9.00

Sources: S&P Dow Jones Indices LLC, CRSP. Data as of Dec. 31, 2024. Returns shown are annualized for periods greater than one year. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

# Appendix A: Mapping

## SPIVA Styles and Fund Classifications

The SPIVA After-Tax Scorecard covers select domestic equity. Fund returns are sourced from the CRSP Survivor-Bias-Free US Mutual Fund Database, a complete database of both active and liquidated or merged mutual funds created in 1995 and containing fund data from December 1961. Institutional-only funds as identified by CRSP are excluded.<sup>5</sup> Fund classifications are based upon the Lipper fund classification system.

### U.S. Equity

The SPIVA After-Tax Scorecard covers major capitalization levels (large-, mid-, small- and multi-cap funds) and investment styles (growth, core and value). S&P Dow Jones Indices relies on 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-U.S. 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, confirms secondary characteristics (price-to-sales and price-to-operating cash flow).

<sup>5</sup> For an analysis of institutional accounts, please refer to the latest [SPIVA Institutional Scorecard](#).

# Appendix B: Glossary

## Percentage of Funds Underperforming 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.

## Equal-Weighted Performance

Equal-weighted returns for a particular style category are determined by calculating a simple average return of all active managers in that category in a particular month.

## Quartile 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.

## Fees

The fund returns used are net of fees, excluding loads.

## Indices<sup>6</sup>

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

## 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.

<sup>6</sup> For more information on S&P Dow Jones Indices, please visit [www.spglobal.com/spdji](http://www.spglobal.com/spdji).

## S&P Composite 1500

This is a broad, market-capitalization-weighted index of 1500 companies formed by combining the S&P 500, S&P MidCap 400<sup>®</sup> and S&P SmallCap 600<sup>®</sup>. The index represents approximately 90% of U.S. equities.

## General Disclaimer

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