Avantis Investors™
By American Century Investments®

How Much Value Does an ETF Add to My Taxable Account?

TAX PERSPECTIVE

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Financial advisors weigh many complex considerations to help clients achieve their goals, including the tax consequences of different investment vehicles. According to the 2019 Trends in Investing Survey, 88% of advisors use or recommend exchange-traded funds (ETFs), up from 40% in 2006 when the survey began. Advisors have preferred ETFs over mutual funds for the last four years.[1] As of January 2020, there was $4.42 trillion invested across 2,100 U.S.-based ETFs.[2]

So why are so many advisors moving their clients' money into these products? One big reason is the advantage an ETF can have over a traditional mutual fund in a taxable account. ETF investors may pay less in taxes today, leaving a larger sum to invest and grow into the future.

In a mutual fund, income received from dividends and realized capital gains inside the fund are distributed to the investor each year—on which she must then pay taxes to the IRS and her state of residency, as applicable. Like a mutual fund, an ETF is required to distribute income received from dividends. However, the in-kind transaction structure of an ETF can minimize capital gains realizations inside the ETF.[3] As a result, an ETF investor is expected to receive lower distributions compared to a mutual fund and therefore a lower annual tax bill. Year over year, money that could have been paid in capital gains taxes on a mutual fund investment would instead compound for the ETF investor, potentially resulting in greater total gains—maybe even accounting for the tax bill on the final gains at liquidation.

In this paper, we share some hypothetical examples to show the magnitude of the impact and expected advantage an ETF has over a mutual fund in a taxable account. For readers interested in understanding more about the design differences between ETFs and mutual funds, we suggest **"ETFs – An Important Tool for Wealth Management"** by our Avantis colleagues Phil McInnis and Mitch Firestein.

SCENARIO 1:

Investor Resides in State With No State Income Tax

Suppose we have an investor, Ava, who is deciding whether to invest her taxable account money in an ETF or a mutual fund. Both strategies have the same return of 8.9% annually; of that, 0.9% will come from dividends (all qualified), and 3.8% will come from capital gains distribution (10% short-term, 90% long-term).[4] Let's assume the following information about Ava:

- She's a high earner with an average federal tax rate on income of 30%.[5] She currently lives in Florida where there is no state income tax.
- Her tax rate on long-term capital gains and qualified dividend income (QDI) is 20%.
- She wants to make a one-time investment of $1 million that she will hold for at least 20 years.

Ava chooses to invest in the ETF instead of the mutual fund because of the tax advantage it offers. If she sold the investment after five years, her decision would result in $8,914 after taxes—more than if she had invested in the mutual fund, a cumulative return difference of 0.89%. As shown in **Figure 1**, if Ava sold after 20 years, she would earn an extra $317,117 after all taxes, a cumulative return difference of 31.71% (353.01% versus 321.30%).

FIGURE 1

No State Tax Scenario: Investment Tax Costs, Final Value Received and Returns

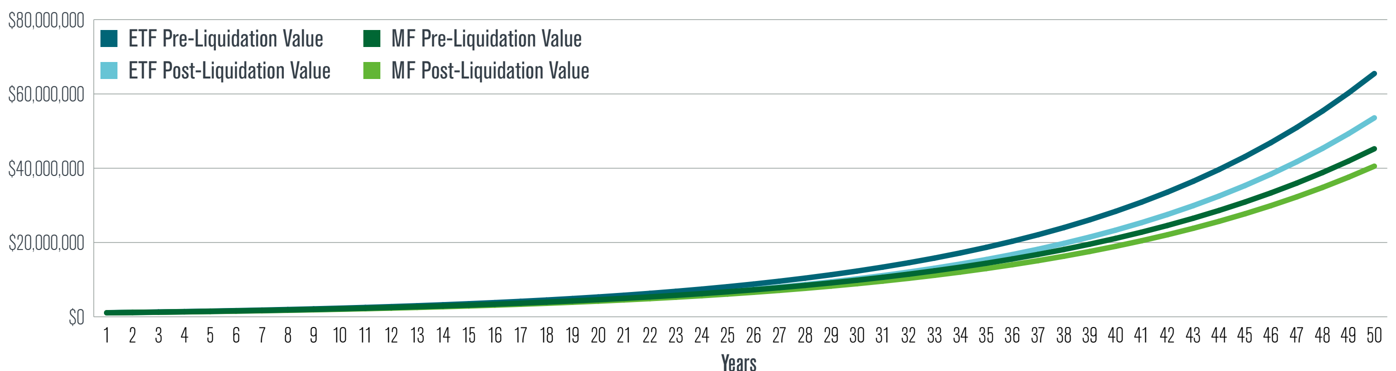
30% Short-Term Income Tax Rate	After 5 Years		After 10 Years		After 20 Years	
20% Long-Term/Dividend Tax Rate	Mutual Fund	ETF	Mutual Fund	ETF	Mutual Fund	ETF
Taxes Paid (Pre-sale)	$57,286	$10,713	$141,155	$26,984	$443,704	$89,244
Taxes Paid at Sale	$49,203	$95,223	$121,237	$239,862	$381,095	$793,284
Total Tax Paid	$106,489	$105,935	$262,392	$266,847	$824,799	$882,528
Final Value Received	$1,414,827	$1,423,740	$2,022,146	$2,067,387	$4,212,997	$4,530,113
Difference (ETF over MF)		**$8,914**		**$45,241**		**$317,117**
Annualized Return	7.19%	7.32%	7.30%	7.53%	7.46%	7.85%
Cumulative Return	41.48%	42.37%	102.21%	106.74%	321.30%	353.01%
Cumulative Return Diff (ETF over MF)		**0.89%**		**4.52%**		**31.71%**

Source: Avantis Investors.

Figure 2 shows the growth in value of the ETF and mutual fund (MF) both before the final sale (pre-liquidation) and after the final sale where all taxes have been paid (post-liquidation) going out 50 years. For a sample of the calculation from years 1-5, please see the appendix.

FIGURE 2

ETFs vs. Mutual Funds: Pre- and Post-Liquidation Values



Source: Avantis Investors.

SCENARIO 2:

Investor Resides in State With High State Income Tax

Now let's suppose Ava decides to move west to California, a state with some of the highest state income tax rates in the country. She would now have an additional California state tax rate of 10%, on top of her federal tax rates, increasing the tax impact on her investment.

After five years in the ETF, Ava's investment would be $10,797 greater than if she invested in the mutual fund, a cumulative return difference of 1.08%. After 20 years, she would earn an extra $390,624, a cumulative return difference of 39.06% (305.79% versus 266.73%). See **Figure 3**.

FIGURE 3

State Tax Scenario: Investment Tax Costs, Final Value Received and Returns

40% Short-Term Income Tax Rate	After 5 Years		After 10 Years		After 20 Years	
30% Long-Term/Dividend Tax Rate	Mutual Fund	ETF	Mutual Fund	ETF	Mutual Fund	ETF
Taxes Paid (Pre-sale)	$84,025	$16,040	$204,385	$40,304	$623,751	$132,527
Taxes Paid at Sale	$73,116	$142,578	$177,849	$358,254	$542,767	$1,178,017
Total Tax Paid	$157,141	$158,618	$382,233	$398,557	$1,166,518	$1,310,543
Final Value Received	$1,359,311	$1,370,108	$1,873,999	$1,929,967	$3,667,311	$4,057,935
Difference (ETF over MF)		**$10,797**		**$55,968**		**$390,624**
Annualized Return	6.33%	6.50%	6.48%	6.80%	6.71%	7.25%
Cumulative Return	35.93%	37.01%	87.40%	93.00%	266.73%	305.79%
Cumulative Return Diff (ETF over MF)		**1.08%**		**5.60%**		**39.06%**

Source: Avantis Investors.

In both examples, in a taxable account, the ETF provides value over the mutual fund because of the capital gains tax advantage, which increases as the investor's income tax rate rises. What if Ava didn't sell the investment after some set number of years but held it to bequeath to heirs upon her death?

SCENARIO 3:

Investor Transfers Property at Death—Step-Up in Cost Basis

Let's assume that from the start of her investment into the ETF, Ava lived 50 more years and never left Florida. After her passing, through her estate, the investment went to her children who received a step-up in cost basis and sold the following day. As a result, the value received from the ETF sale would exceed $65 million, whereas an investment in the mutual fund would yield $45 million—a $20 million difference, before estate taxes were paid. Even after the 40% estate tax based on current federal law, the benefit of the ETF investment would exceed $12 million.[6]

Financial advisors understand the importance of protecting clients' wealth and finding ways to minimize their tax burdens. By utilizing ETFs over mutual funds in a taxable account, you can see that the potential benefit to investors can be significant.

ENDNOTES

[1] Trends in Investing Survey is conducted by the *Journal of Financial Planning* and the FPA Research and Practice Institute™, 2014, 2018 and 2019 reports, Financial Planning Association, www.onefpa.org.

[2] "ETF Assets and Net Issuance, January 2020," Investment Company Institute (ICI), February 27, 2020. https://www.ici.org/research/stats/etf/etfs_01_20.

[3] Phil McInnis and Mitchell Firestein, "ETFs – An Important Tool for Wealth Management," Avantis Investors, October 2019, https://www.avantisinvestors.com/content/avantis/en/insights/etfs-important-tool-for-wealth-management.html.

[4] Using Morningstar 2000-2019 average total, income and distributed capital gains returns data, assume fund has 60% allocated to U.S. Large Blend and 40% allocated to U.S. Small Blend. Source: Morningstar, March 2020.

[5] Investors in the highest marginal tax rate bracket should use the marginal tax rate to calculate actual tax burden; any additional income will be taxed at the marginal tax rate, not the average rate, increasing the tax deferral benefit of the ETF.

[6] Pre-liquidation ETF value: $65,384,105; MF value: $45,237,568. Estate tax of 40% on value above $11.4 million, results values of $39,230,456 and $27,142,534, respectively, difference of $12,087,922.

APPENDIX | CALCULATIONS FOR SCENARIO 1, YEARS 1-5

	Years				
Mutual Fund	1	2	3	4	5
Cost Basis	$1,000,000	$1,037,220	$1,077,389	$1,120,739	$1,167,524
Begin Value	$1,000,000	$1,079,220	$1,164,716	$1,256,985	$1,356,563
Return	$89,000	$96,051	$103,660	$111,872	$120,734
Ending Value (pre-tax, pre-dist.)	$1,089,000	$1,175,271	$1,268,376	$1,368,856	$1,477,297
Income Distribution	$9,000	$9,713	$10,482	$11,313	$12,209
Cap Gain Distribution	$38,000	$41,010	$44,259	$47,765	$51,549
Short-Term Gain	$3,800	$4,101	$4,426	$4,777	$5,155
Long-Term Gain	$34,200	$36,909	$39,833	$42,989	$46,394
Tax Paid	$9,780	$10,555	$11,391	$12,293	$13,267
Ending Value (after-tax, reinvested)	$1,079,220	$1,164,716	$1,256,985	$1,356,563	$1,464,030
Post-Liquidation Value	$1,070,820	$1,147,250	$1,229,736	$1,318,755	$1,414,827

	Years				
ETF	1	2	3	4	5
Cost Basis	$1,000,000	$1,007,200	$1,015,028	$1,023,538	$1,032,791
Begin Value	$1,000,000	$1,087,200	$1,182,004	$1,285,075	$1,397,133
Return	$89,000	$96,761	$105,198	$114,372	$124,345
Ending Value (pre-tax, pre-dist.)	$1,089,000	$1,183,961	$1,287,202	$1,399,446	$1,521,478
Income Distribution	$9,000	$9,785	$10,638	$11,566	$12,574
Tax Paid	$1,800	$1,957	$2,128	$2,313	$2,515
Ending Value (after-tax, reinvested)	$1,087,200	$1,182,004	$1,285,075	$1,397,133	$1,518,963
Post-Liquidation Value	$1,071,200	$1,148,609	$1,232,767	$1,324,265	$1,423,740

	1	2	3	4	5
ETF/MF Post-Liquidation Value	1.00	1.00	1.00	1.00	1.01

Source: Avantis Investors. Calculation does not take into account trading costs/commissions that may exist for investor to purchase/sell either investment vehicle. Calculation assumptions: same expense ratio for both vehicles; all distributions (dividend and capital gains) net of taxes are reinvested into strategy immediately; ETF does not distribute capital gains; capital gains taxes are paid for ETF at sale; time period used is years; income and capital gains distribution occur at end of period; sale occurs at end of period.

Pre-Liquidation Value: value of investment before investment is sold and any outstanding taxes are paid.

Post-Liquidation Value: value of investment after investment is sold and any outstanding taxes are paid.

ETF/MF Post-Liquidation Value: ratio of the ETF investment value divided by mutual fund investment value after investments are sold and taxes are paid, assuming the investor is required to pay taxes on the investment.

This hypothetical situation contains assumptions that are intended for illustrative purposes only and are representative of the performance of any security. There is no assurance similar results can be achieved, and this information should not be relied upon as a specific recommendation to buy or sell securities.

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Vadim is a vice president, relationship director and investment specialist at Avantis Investors. Prior to Avantis Investors' establishment in 2019, he served as vice president and regional director at Dimensional Fund Advisors (DFA). In this role, Vadim managed firm relationships with California-based RIA firms and family offices, developed new client relationships with RIAs and co-led sales efforts of ESG funds. Before that, he was a member of DFA's research department where he was responsible for supporting the management of separately managed accounts and researching equity reconstruction effects, portfolio versus benchmark tracking errors and accounting rule changes on book equity values of U.S. firms.

Vadim earned an MBA with concentrations in analytic finance and entrepreneurship from the University of Chicago Booth School of Business and a Bachelor of Arts in applied mathematics with a concentration in econometrics and a minor in business administration from the University of California, Berkeley. He is a CFA charterholder and holds Series 7 and 63 licenses.

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Before joining Avantis Investors, Jeff served as a vice president and regional director at Dimensional Fund Advisors (DFA) where he spent over 16 years working with wealth management firms in a variety of capacities. He specialized in helping advisors understand and implement DFA's academic-based investment strategies. In addition, Jeff supported DFA clients in areas of messaging and business strategy. In his most recent role, he managed a team of regional directors focused on large, strategic relationships. Before DFA, Jeff was a senior consultant in the International Tax Group at Ernst & Young where he assisted multinational corporations with the strategic planning and analysis of intercompany transfer pricing.

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