Avantis Investors®

FPA DFW 2023 Conference

The Feeling Isn't Mutual: Why Advisors Are Choosing ETFs Over Mutual Funds and How SMAs Compare

February 9, 2023

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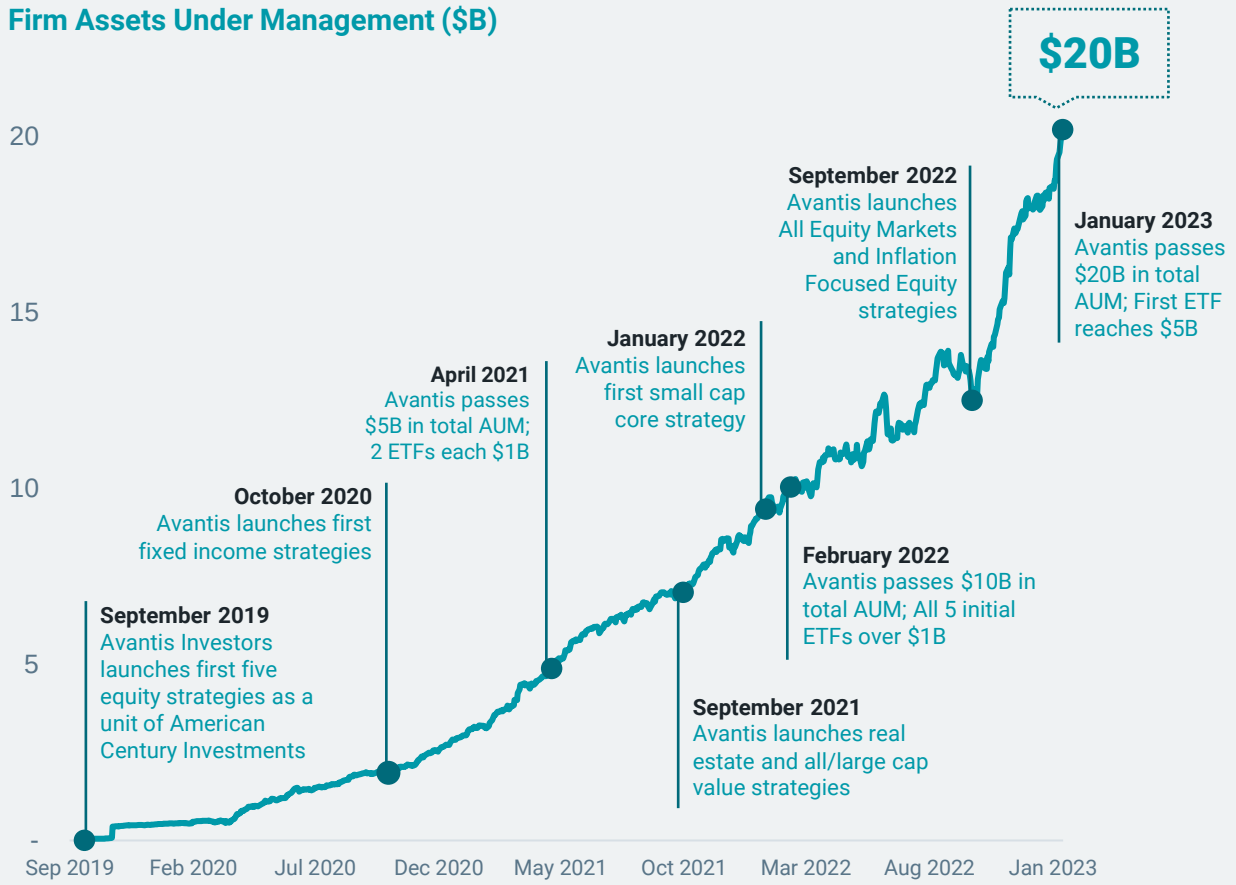
Avantis Investors from Launch to Today



January 13, 2023

Avantis Investors After 3 Years

- $20.2B total AUM
- $10.8B net cash flow in 2022
- 18 strategies
  - 13 equity
  - 3 fixed income
  - 2 real assets
- 12 strategies over $100M
- 2,000+ institutional and advisory clients

Data as of 1/13/2023.

Goals for Today

- Understand how mutual funds, ETFs and SMAs work
- Discuss the potential benefits and limitations of each structure and considerations across asset classes
- Examine the tradeoffs of using each structure to build portfolios for your clients

Differences in Structure

Mutual Fund and ETF History

In what year was the first closed-end fund launched?

a. 1794
b. 1868
c. 1893
d. 1912

Mutual Fund and ETF History

In what year was the first closed-end fund launched?

a. 1794
b. 1868 – The Foreign and Colonial Investment Trust
c. 1893
d. 1912

Mutual Fund and ETF History

When was the first open-end mutual fund created in the US?

a. 1893
b. 1912
c. 1924
d. 1940

Mutual Fund and ETF History

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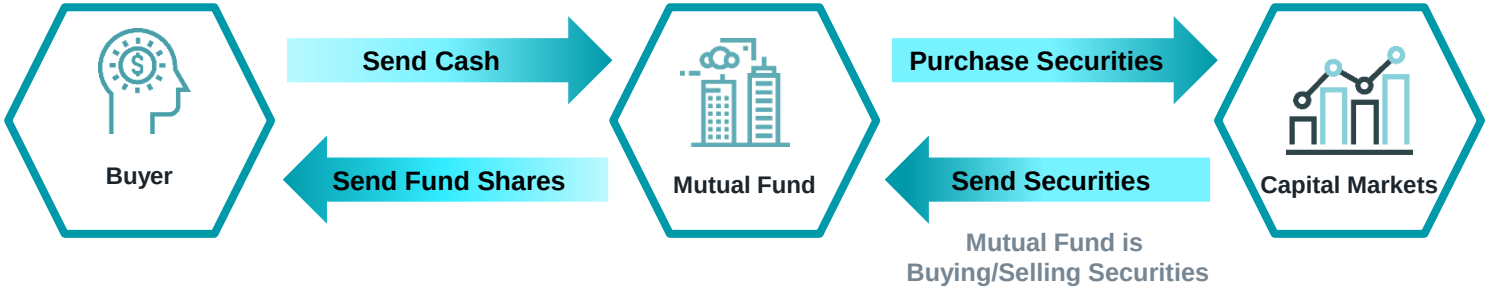
a. 1893
b. 1912
c. 1924 – Massachusetts Investors Trust
d. 1940

Typical Mutual Fund Structure

Mutual funds buy and sell securities to manage inflows/redemptions/turnover.

- Mutual funds tend to deal “in-cash” with investors
- Mutual funds buy and sell securities in response to investors cash flows.



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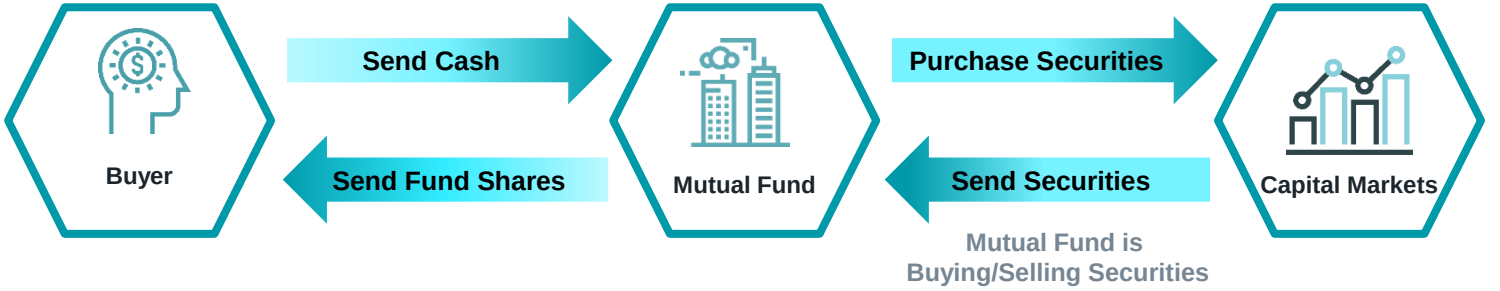

Costs include:

- Commissions, bid-ask spreads, market impact, opportunity cost of holding cash, cost of borrowing with lines of credit
- Taxable capital gains distributions when selling securities (e.g. to satisfy redemptions)

Costs are shared across all investors (the ones coming in or out and the long-term investors).

Mutual Fund and ETF History

When was the first ETF launched in the US?

a. 1978
b. 1987
c. 1993
d. 2002

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What Index was it designed to track?

a. Dow Jones Industrial Average
b. S&P 500
c. NASDAQ 100
d. FPA DFW Hot Stock Picks

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Typical ETF Structure

ETFs do not interact with investors cash flows directly. They do it through “authorized participants” that create/redeem ETFs shares “in-kind” to satisfy investors cash flows.

- ETFs tend to deal “in-kind” with investors’ activity, accepting/delivering securities

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- **Costs tend to be paid by the investors involved in the transaction.**
- **ETFs minimize the effect of investors’ activity on long-term investors.**

Tax Treatment and Tax Impact

SMAs – Tax Treatment and Tax Impact

Dividends

- An SMA realizes dividend income from securities, investors must pay taxes on that income
- Qualified holding period (common stock): 60 days during 121-day period that starts 60 days before the ex-dividend date
- Publicly traded “equity” securities with unqualified dividends: REITs

MF/ETFs – Tax Treatment and Tax Impact

Dividends

- A fund/ETF realizes dividend income from securities
- Dividend income, net of fund/ETF expenses, is distributed to investors who must pay taxes on those distributions
- Qualified holding period (common stock): 60 days during 121-day period that starts 60 days before the ex-dividend date
- Publicly traded “equity” securities with unqualified dividends: REITs

SMAs – Tax Treatment and Tax Impact

Capital Gains

- An SMA realizes capital gains when appreciated securities are sold
- Because the investor directly holds the underlying stocks (as opposed to shares in a commingled vehicle like an ETF or mutual fund), there is likely additional flexibility to harvest losses
- The potential for what is referred to as “tax-alpha” is dependent on a variety of factors, including the investor’s tax bracket, the amount of realized gains from assets held outside of their taxable equity portfolio, the routineness of cash flows, and the cost basis of the SMA holdings

MF/ETFs – Tax Treatment and Tax Impact

Capital Gains

- A fund/ETF realizes capital gains when it sells appreciated securities
- Realized capital gains are distributed to investors who must pay taxes on those distributions

Funds

Since mutual funds deal with investors "in-cash," the fund manager must sell securities to raise cash for the redeeming investor.

Low turnover funds tend to be more tax-efficient.

Fund can harvest losses to offset gains to minimize current distributions, but that process increases "unrealized capital gains" which may be distributed in the future.

MF/ETFs – Tax Treatment and Tax Impact

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ETFs

Since ETFs deal with investors "in-kind," the fund manager tends not to sell securities to satisfy redemptions.

ETF manager can sell "losers" to harvest losses and deliver "winners" in-kind, benefiting the tax position of investors.

The in-kind redemption process minimizes the increase in realized and unrealized capital gains.

Taxation Matters

With increasing government debt, there is a concern about higher taxation (at some point in the future, decisions today affect the future)

What can we do to minimize the effect of taxation on our savings?

- All else equal, tax deferrals may allow for higher expected compound rates of return
- Low turnover investment strategies tend to reduce capital gains realization. Turnover is the amount bought and sold by portfolio managers inside the portfolio
- All else equal, ETFs tend to be more tax efficient than mutual funds. SMAs, depending on the investor's circumstances, can provide additional flexibility for tax-loss harvesting over short horizons, but there are important caveats to consider.

Case Study: Significance of Tax Savings Over Time

An investor is deciding whether to invest her taxable account money in an ETF or a mutual fund.

Both the ETF and mutual fund have the same return of 8.9% annually;

- Of that, 0.9% will come from dividends (all qualified)
- 3.8% will come from capital gains distribution (10% short-term, 90% long-term)

More information about our investor:

- She's a high earner with an average federal tax rate on income of 30%.
- 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.

Case study uses Morningstar 2000-2019 average total, income and distributed capital gains returns data, assumes fund has 60% allocated to U.S. Large Blend and 40% allocated to U.S. Small Blend. Source: Morningstar, March 2020. 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. This information is for educational purposes only and is not intended as tax advice. Please consult your tax advisor for more detailed information or for advice regarding your individual situation.

Case Study: Significance of Tax Savings Over Time

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

30% Short-Term Income Tax Rate 20% Long-Term/Dividend Tax Rate	After 5 Years		After 10 Years		After 20 Years	
	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. For illustrative purposes only

- If she chose an ETF and sold the investment after five years, her decision would result in a surplus of **$8,914 after taxes** vs. the mutual fund investment
- The surplus grows over time; if the investment is sold after 20 years it results in an additional **$317,117**

Case study uses Morningstar 2000-2019 average total, income and distributed capital gains returns data, assumes fund has 60% allocated to U.S. Large Blend and 40% allocated to U.S. Small Blend. Source: Morningstar, March 2020. 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. This information is for educational purposes only and is not intended as tax advice. Please consult your tax advisor for more detailed information or for advice regarding your individual situation.

Determining Which Vehicle Makes Sense for Your Clients

Mutual Fund and ETF History

Since the beginning of 2020, what have the cumulative outflows of equity mutual funds been?

a. Greater than $100 billion
b. Greater than $500 billion
c. Greater than $1 trillion
d. Greater than $1.5 trillion

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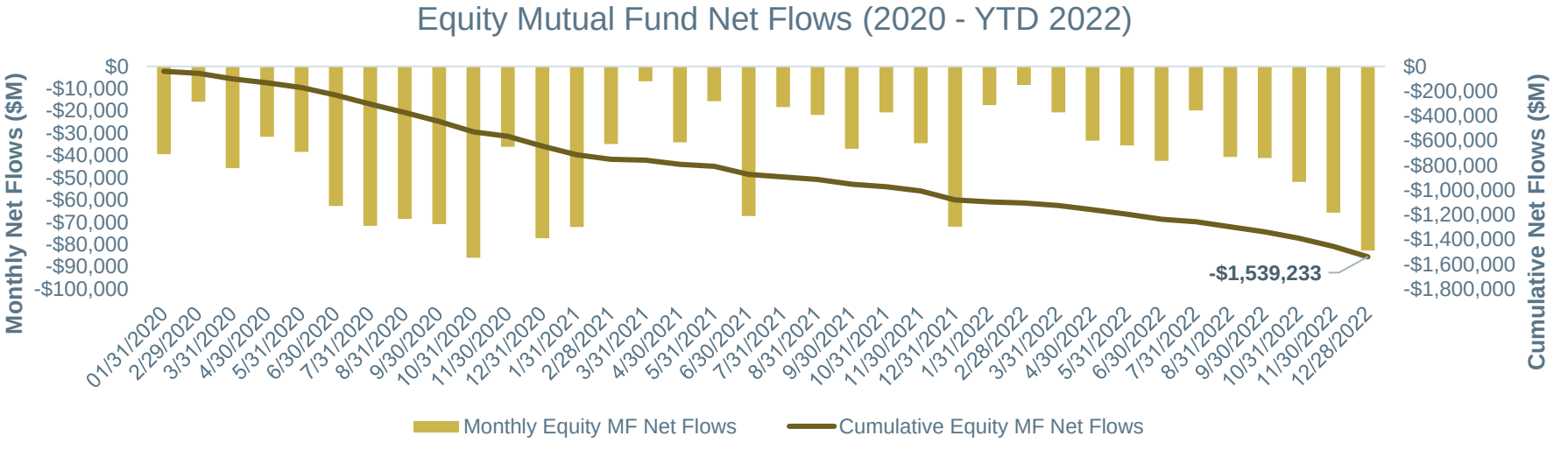
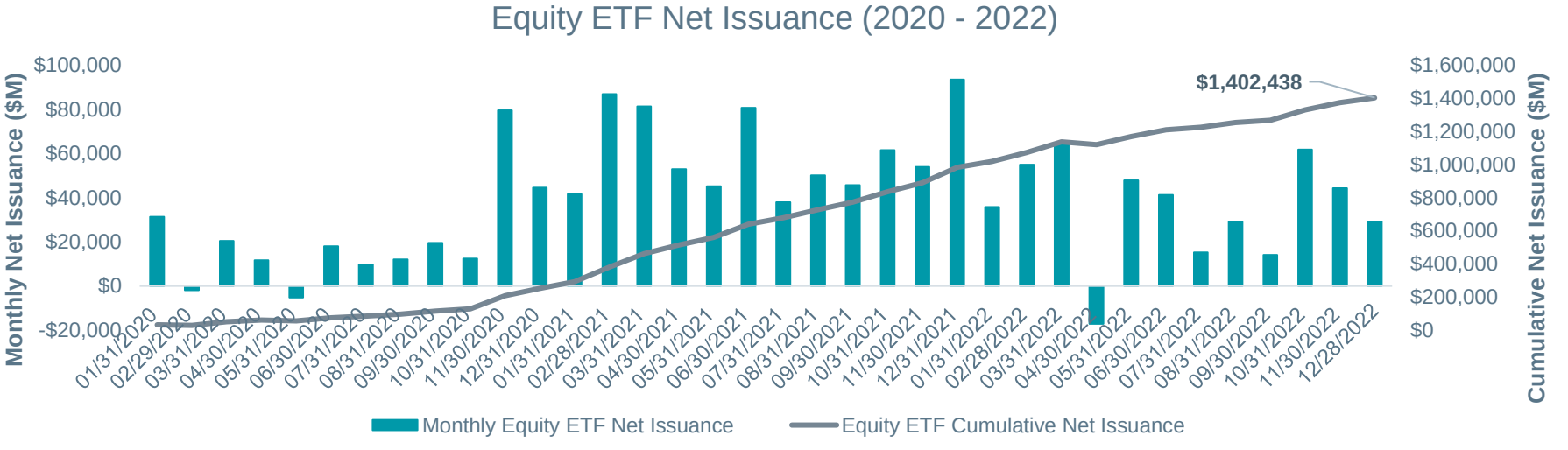
Investors Have Voted with Their Dollars





Source: Investment Company Institute, data from 2020-2022

ETFs, Mutual Funds, and SMAs

Comparing and Contrasting Vehicle Options

CHARACTERISTICS	ETFs	MUTUAL FUNDS	SMAs
Commingled vehicle	Yes	Yes	No
Investor customization	No	No	Yes
Ability to invest globally	Yes	Yes	Limited**
Insulation from trading activity of other shareholders	High	Low/medium*	High
No transaction fee (NTF) trading	Common	Not common	Common
TAX EFFICIENCY: ABILITY TO DEFER CAPITAL GAINS	**ETFs**	**MUTUAL FUNDS**	**SMAs**
Tax effectiveness over shorter investment periods	High	Low/medium*	High
Tax effectiveness over longer investment periods	High	Low/medium*	Low/medium

*Exposed to investors' purchases and redemptions
**May be cost prohibitive or limited to access through ADRs/GDRs
Source: Avantis Investors, January 2023

Questions?

What is the Impact if Tax Rates Change?

Table 1: 30% Short-Term Tax Rate; 20% Long-Term/Dividend Tax Rate.
Table 2: 30% Short-Term Tax Rate; 20% Dividend Tax Rate, 40% Long-Term Tax Rate

	After 5 Years		After 10 Years		After 20 Years	
	Mutual Fund	ETF	Mutual Fund	ETF	Mutual Fund	ETF
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Total Tax Paid	$ 106,489	$ 105,935	$ 262,392	$ 266,847	$ 824,799	$ 882,528
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Cumulative Return Diff (ETF over MF)		**0.89%**		**4.52%**		**31.71%**

	After 5 Years		After 10 Years		After 20 Years	
	Mutual Fund	ETF	Mutual Fund	ETF	Mutual Fund	ETF
Taxes Paid (Pre-sale)	$ 96,032	$ 10,713	$ 232,227	$ 26,984	$ 699,316	$ 89,244
Taxes Paid at Sale	$ 97,072	$ 190,445	$ 234,742	$ 479,724	$ 706,890	$ 1,586,568
Total Tax Paid	$ 193,105	$ 201,158	$ 466,969	$ 506,709	$ 1,406,206	$ 1,675,812
Final Value Received	$ 1,321,147	$ 1,328,518	$ 1,776,605	$ 1,827,524	$ 3,338,628	$ 3,736,829
Difference (ETF over MF)		**$ 7,370**		**$ 50,919**		**$ 398,202**
Cumulative Return	32.11%	32.85%	77.66%	82.75%	233.86%	273.68%
Annualized Return	5.73%	5.85%	5.92%	6.22%	6.21%	6.81%
Cumulative Return Diff (ETF over MF)		**0.74%**		**5.09%**		**39.82%**

Source: Avantis Investors. For illustrative purposes only

These tables show the difference in growth of a dollar between a mutual fund and ETF. Both strategies assume a $1 million beginning balance and an 8.9% annual return. Of that, 0.9% will come from qualified dividends, and 3.8% will come from capital gains distributions (10% short-term, 90% long-term). This breakdown used average data from Morningstar over the 2000-2019 period for a blend of US large cap (60%) and US small cap (40%) securities.

Helpful Hints When Trading ETFs

Trading ETFs is different from trading mutual funds. There are some important considerations to make when designing your trading process.

Your Custodian's Institutional Trading Desk

- The trading desk is well equipped to handle large blocks
- They can interact directly with market makers to help advisors improve their executions
- We are happy to help you get in touch with them

Differences Between Market and Limit Orders

- A limit order is executable when the price is at or better than the limit entered, but not worse
- A market order will be filled by moving through prices in the order book. If there is not enough shares at a given price, it will move to the next price level

Multiple Layers of Liquidity in ETFs

- There is often more liquidity available than what is displayed in an order book
- Estimating liquidity in ETFs involves considering the aggregate amount of liquidity available in the underlying securities

Your Custodian's Institutional Trading Desk

Schwab, TD Ameritrade, Fidelity and others have institutional trading desks to help advisors improve their executions.

In some cases, there is automatic connectivity between advisors' trading/rebalancing software and the custodian trading desks, however advisors may have to contact their custodian to create the connectivity.

The desks can help with large block trades since they can interact directly with market makers who are able to create/redeem ETF shares. The creation/redemption mechanism allows for cost-effective purchases/sales of large quantities of ETF shares.

We have seen trades of >10,000 shares executed directly in the market with limit orders, but it may be better to send those orders to the custodian desks.

How Do Limit Orders Work?

Consider two examples:

Limit Order – Scenario A

- Ask is at $10.00
- Buy limit order for 800 shares entered at $10.02
- Order Book when trade is submitted:

Shares	Price
1000	$ 10.03
1000	$ 10.02
1000	$ 10.01
1000	$ 10.00

- 800 shares will be executed at $10.00

Limit Order – Scenario B

- Ask is at $10.00
- Buy limit order for 3,300 shares entered at $10.02
- Order Book when trade is submitted:

Shares	Price
1000	$ 10.03
1000	$ 10.02
1000	$ 10.01
1000	$ 10.00

- 1,000 shares will be executed at $10.00, 1,000 shares at $10.01, and 1,000 shares at $10.02. The remaining 300 shares will be left unfilled until there is more liquidity at or below $10.02
- If the market moves too much, the unfilled portion of the order can be canceled and a new order can be entered at a new price

Limit orders enable control for price execution risk, however orders may need to be reposted if prices move beyond the entered limit before the entire order is completed.

This may lead to a little extra work, but it gives traders peace of mind by minimizing the risks of a completely unexpected price execution.

How Do Market Orders Work?

Consider two examples:

Market Order – Scenario A

- Ask is at $10.00
- Buy market order for 3,300 shares
- Order Book when trade is submitted:

Shares	Price
1000	$ 10.03
1000	$ 10.02
1000	$ 10.01
1000	$ 10.00

- There are no additional shares available beyond what is displayed in the order book
- 1,000 shares will be executed at $10.00, 1,000 at $10.01, 1,000 at $10.02 and 300 shares at $10.03 for an average price of $10.012

Market Order – Scenario B

- Ask is at $10.00
- Buy market order for 3,300 shares
- Order Book when trade is submitted:

Shares	Price
1000	$ 10.03
1000	$ 10.02
1000	$ 10.01
1000	$ 10.00

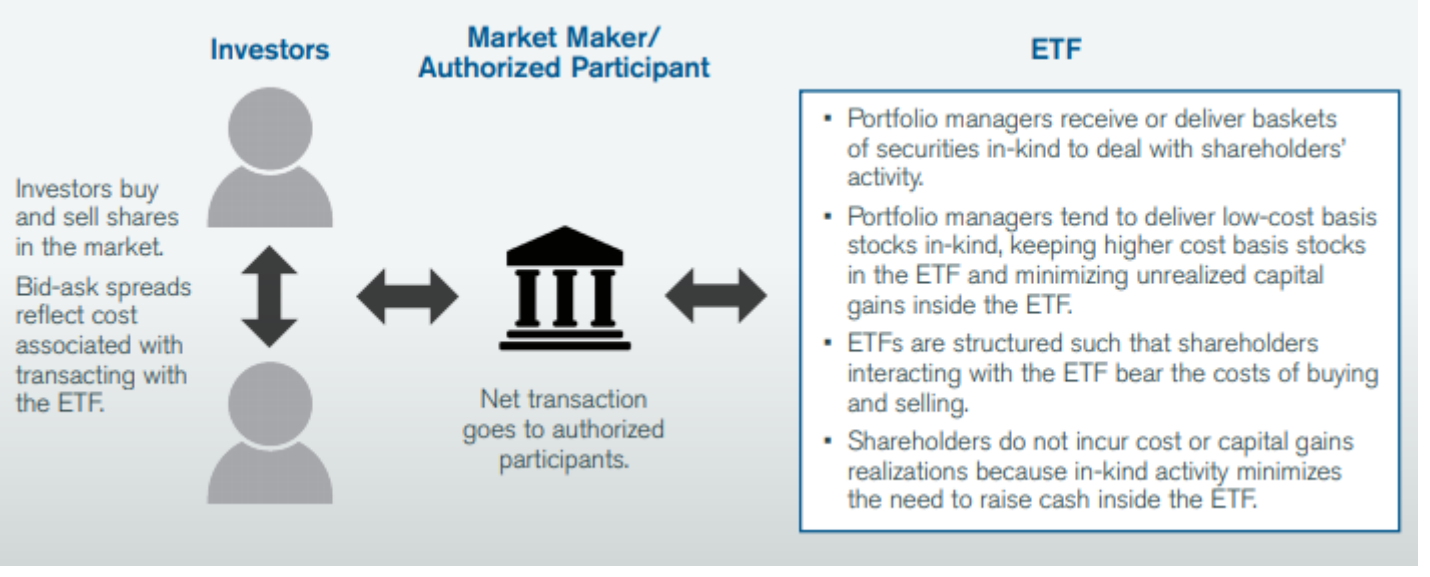
- There are an additional 1,000 shares not displayed but available at $10.01
- 1,000 shares will be executed at $10.00, 2,000 shares will be executed at $10.01, and 300 shares will be executed at $10.02 for an average price of $10.008

While market orders ensure the trade gets done, the risk is that the price may move a lot to fill the order. Orders move so quickly through the electronic systems that there may not be enough time for market makers to replenish liquidity at the lower price levels.

- For large orders, using the institutional trading desk or splitting the trade into several limit orders will likely achieve better execution prices.
- If using market orders, smaller sized trades (<1,000 shares) may be better, but it is a good practice to check the size of the book when the order is going to be entered.

Liquidity in ETFs

Investors buy and sell ETF shares in the market.



Available liquidity is greater than what we see at the bid/ask

- "Secondary" – Direct liquidity of ETF shares in the market at the bid/ask and other price levels
- "Primary" – Liquidity of underlying securities since market markers can create new ETF shares by delivering the underlying securities to the ETF.

Estimating liquidity in an ETF involves considering the aggregate liquidity of underlying stocks, which tends to be significant for broadly diversified portfolios.

Establishing Your Process

Leveraging different order types can help you structure an effective process that allows for efficient trading

- Use your custodian's institutional desk whenever possible, particularly for very large trades (e.g., reallocation trades across all accounts)
- Avoid trading at the market open
- Marketable limit orders allow you to get trades done while controlling risks
  - Set limit prices at, or even a few cents above, the ask for buys and split orders into blocks (up to 10,000 shares)
- Market orders should only be used for smaller sized trades
  - Generally order sizes up to 1,000 shares, but check size of the book
  - Again, entering marketable limit orders by setting the limit at the ask or a few cents above for buys can achieve the same goal while managing risks

Please reach out to us if you have questions. We are here to help.

Disclosures

Investment return and principal value of security investments will fluctuate. The value at the time of redemption may be more or less than the original cost. Past performance is no guarantee of future results.

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Calculation for 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.