Vanguard

ETF Industry Perspectives Q3 2023

A summer lull, punctuated by hints of risk-off sentiment

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Highlights of the quarter

ETF industry assets and cash flow

ETF industry assets fell 2.2% in the third quarter to $7.2 trillion as inflows of $111 billion were offset by market depreciation of $274 billion, amid a growing sense that even as the Federal Reserve slows its nearly two-year campaign of raising interest rates, investors expect borrowing costs to remain elevated for an extended period. Equity returns were mixed across each sector, with utilities weighing on returns the most, while rises in long-term yields continued to weigh on fixed income prices.

ETF industry trends and developments

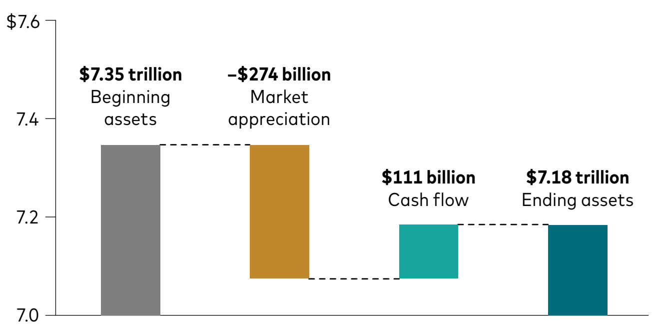
Ongoing concerns that the U.S. economy might be heading into recession in the coming months put a slight damper on the powerful ETF flows engine of recent years. While S&P 500 strategies continued to generate interest, investors also looked for ways to potentially protect returns given the backdrop of an uncertain economic outlook. They explored alternatives to market-cap-weighted strategies, as well as nontraditional equity ETFs. Still, advisors should carefully consider the specific risks that accompany such approaches.

ETF industry assets and cash flow

Equity flows stay in the lead

ETF flows continued to revert to their historical mean, with equities again leading cash flows as they have for much of the 30-year history of ETFs. Equity ETFs attracted $79.8 billion in the third quarter despite domestic equities falling 3.3%. The flows appear to reflect investors possibly chasing strong equity performance year-to-date, as large-capitalization technology stocks rebound from 2022. Fixed income ETFs gathered $34 billion, a respectable haul compared with other quarters. But continued focus on keeping inflationary pressure at bay and the possibility of a recession likely impeded inflows. Moreover, broad fixed income prices retreated slightly. Overall, ETF assets fell 2.2% to about $7.2 trillion in the quarter, as inflows into equity ETFs offset stock and bond market declines.

Q3 2023 change in ETF industry assets

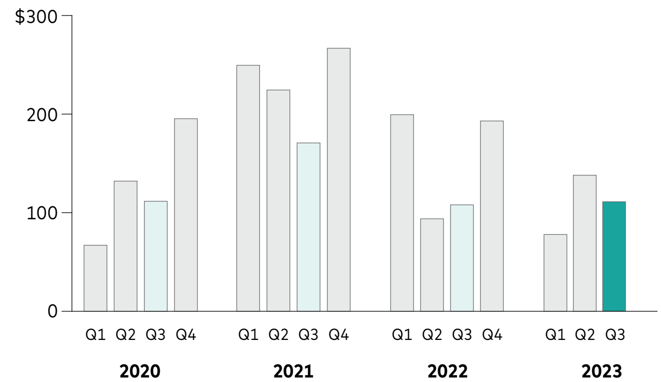


Sources: Vanguard, based on data from Morningstar, Inc., for the quarter ended September 30, 2023.

Active ETF buzz continues

Actively managed ETFs are growing despite holding only 6.2% of industry ETF assets at quarter-end. But their success is manifesting itself disproportionately. Year to date, active ETFs have seen flows of $79 billion, but 37% of the flows have been into just 10 of 1,215 active ETFs in the marketplace. So while active ETFs continue to take hold, the strategy and manager are still paramount to an ETF's success.[1]

Quarterly industry cash flow ($B)



Note: Data based on U.S.-listed issues only, not including ETNs.
Sources: Vanguard, based on data from Morningstar, Inc., as of September 30, 2023.

Third-quarter flows totaled $111 billion, which were about 20% lower than the $138 billion total gathered in the second quarter. Equities, again, were the main source of ETF inflows. More broadly, much of the equity inflows came from large-cap strategies, notably total-market strategies. Still, by quarter-end, U.S. and international equities lost value, reflecting in part a summer lull in markets that sapped liquidity as well as concerns about more rate hikes and the possibility of a recession. Although fixed income had billions of inflows in the third quarter, investors picked their spots, shedding high-yield corporate credit and gravitating to shorter-duration credit but also doubling down on long-term Treasuries. The latter strategy reflects anticipation of an eventual economic slowdown while also trying to defy concerns about the Fed's rate strategy pushing yields higher.

1 Morningstar, Inc., as of September 30, 2023.

Equity ETFs

Of the $79.8 billion that flowed into equity ETFs in the third quarter, $66.6 billion went into U.S. equities—in line with long-term cash flow trends. ETFs that directly track the Standard & Poor's 500 Index continued to lead equity flows, gathering $57.7 billion year to date, or 30%, of net new equity ETF purchases in 2023.

Also, small- and mid-cap ETF inflows were strong, a possible reflection of investors seeking to offset a growing concentration of large-cap companies in the U.S. stock market. And investors continued to explore alternative equity strategies in the third quarter, as they did through the year's first half.

Equity ETF cash flow by category ($B)

Broad equity categories

U.S.	**$66.6**
International	$9.7
Sector	–$1.1
Nontraditional	$4.6

Breakdown of U.S. equity

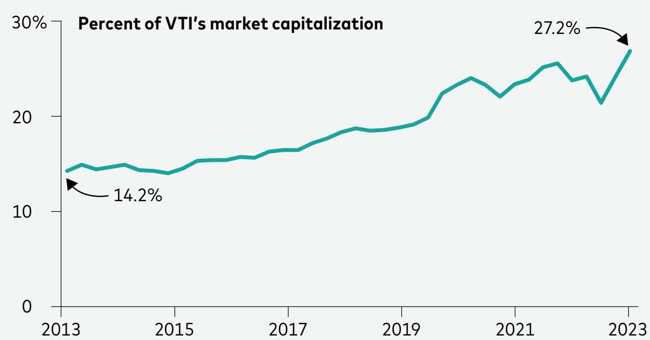
	Value	Blend	Growth
Large-cap	$3.1	$42.3	$6.5
Mid-cap	$0.4	$7.2	$0.0
Small-cap	$2.2	$4.6	$0.3

Note: Data based on U.S.-listed issues only, not including ETNs.
Sources: Vanguard, based on data from Morningstar, Inc., as of September 30, 2023.

Spotlight on market concentration

The top 10 holdings in Vanguard Total Stock Market ETF (VTI) now occupy about 27% of its portfolio, compared with 14.2% a decade ago. Moreover, those large-cap holdings are now heavily tilted to the tech sector, which makes up 26% of VTI, up from 18%. Notwithstanding that concentration, we believe investors should resist the temptation to shift out of market-cap-weighted strategies. Any deviation from market-cap weighting strays from the objective of achieving fair representation of the market. In addition, beating such strategies has historically been a challenge. In eight of the last 10 years, VTI's annual performance has been in the top half of all ETFs in its category.[2] Lastly, navigating away from market-cap-weighted strategies may result in unintended consequences, namely higher portfolio turnover and transaction costs to maintain an equal weighting, plus higher relative volatility from the greater exposure to mid- and small-cap stocks.

Total market cap of VTI's top 10 holdings over time



Note: Data cover September 30, 2013, through September 30, 2023.
Source: Vanguard.

2 **Source:** Morningstar, Inc., from January 1, 2013, through December 31, 2022. VTI was in the top half of annual performance of those competing funds in eight of those 10 years, except 2021 and 2022. The number of funds in the comparison varied over those 10 years, from 1,559 in 2013 to 1,358 in 2022. Results will vary for other time periods. **Note that the competitive performance data shown represent past performance, which is not a guarantee of future results, and that all investments are subject to risks. For the most recent performance, visit our website at** www.vanguard.com/performance**.**

Fixed income ETFs

Taxable fixed income

Fixed income inflows totaled $34 billion in the third quarter. Flows into investment-grade corporate credit, though, were half their second-quarter levels, as investors sought relatively attractive yields on the front end of the yield curve while keeping duration risk in check. In addition, outflows this year from inflation-protected bonds and commodities accelerated in the third quarter as investors reacted to declining inflation expectations. Flows out of long-dated U.S. Treasuries were muted, as investors appeared to be positioning their portfolios for an extended period of higher rates as the Fed winds down its nearly two-year rate-hiking campaign.

Municipal fixed income

Inflows into municipal bond ETFs continued in the third quarter at about the same level as in the second quarter. Flows into muni ETFs totaled about $3.8 billion, with most of those new investments concentrated in total muni strategies, with holdings across the muni yield curve.

Fixed income ETF cash flow by category ($B)

Broad fixed income categories

U.S. taxable	**$28.9**
International	$1.3
Municipal	$3.8

Breakdown of U.S. taxable fixed income

	Short-term	Intermediate-term	Long-term
Government	–$1.7	$3.8	$7.9
Investment-grade	$13.8	$5.9	$0.3
High-yield	–$1.0		
Other	–$0.1		

Notes: Data based on U.S.-listed issues only, not including ETNs. "Other" includes ETFs in Morningstar's Preferred Stock, Bank Loan, Multisector Bond, Nontraditional Bond, and Target Maturity categories.

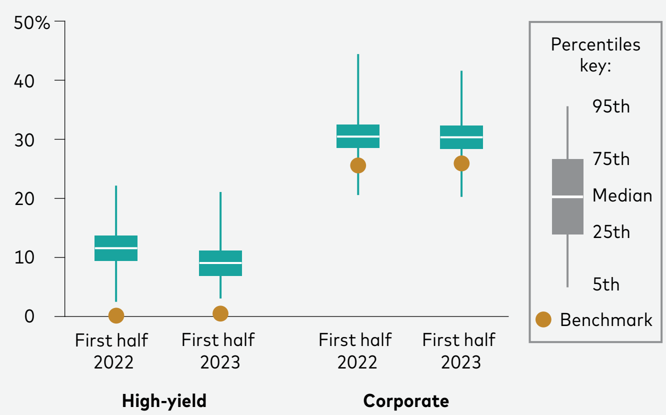
Sources: Vanguard, based on data from Morningstar, Inc., as of September 30, 2023.

Spotlight on credit exposure

Before the Fed began raising interest rates in early 2022, some investors were finding extra yield by increasing their credit allocations, notably high yield. With the yield curve generally providing more attractive yields, investors can reconsider their approach. Vanguard research shows advisors still relying on an overallocation to credit for that.[3] We encourage advisors to explore options to offset high-yield exposure with Treasuries and investment-grade corporates and use duration levers to potentially enhance returns.

Advisors often favor high-yield bonds, but the magnitude varies

Advisor allocations to credit sectors



Notes: There were 599 fixed income sleeves observed in the period, with an average of six tickers per allocation sleeve. Fixed income charts include all observed portfolios in each time period. The benchmark used for the high-yield box plots is the Bloomberg U.S. Aggregate Float Adjusted Index. The benchmark used for the corporate box plots is an advisor blended benchmark of 85% Bloomberg U.S. Aggregate Float Adjusted Index and 15% Bloomberg Global Aggregate ex-USD Float Adjusted RIC Capped Index.

Sources: Vanguard, based on data from Morningstar, Inc., as of June 30, 2023.

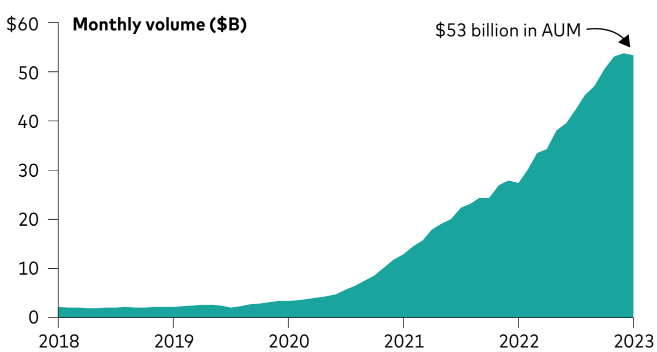
3 Vanguard analysis, based on 599 fixed income allocations observed in the period, with an average of six tickers per allocation sleeve, and Morningstar, Inc., as of June 30, 2023.

ETF industry trends and developments

Approach nontraditional equity ETFs with caution

One active strategy that appears to resonate with investors is nontraditional equity. Such strategies reached $53 billion in the third quarter, continuing a growth trend over the last two years. Derivative strategies are driving this growth, notably turnkey buy-write option strategies in an ETF wrapper. These strategies, borne of an environment of ultralow rates that no longer prevails, provide the potential benefit of income that buffers downside risk. Crucially, though, they don't eliminate risks so much as transfer them. Thus, a few caveats are in order.

Nontraditional equity ETF growth ($B)



Note: Data based on U.S.-listed issues only, not including ETNs.
Sources: Vanguard, based on data from Morningstar, Inc., from September 30, 2018, through September 30, 2023.

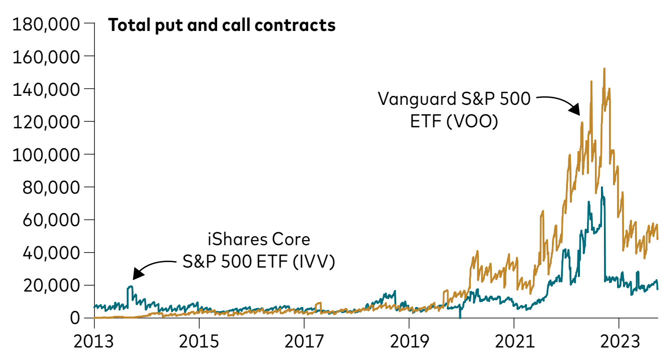
Buy-write ETFs

Buy-write ETFs that employ "covered call" strategies can generate yield and hedge against downside risk. But that comes at the cost of capped market appreciation in the event the underlying equity holding is "called" should it rise beyond its strike price. And downside risk remains should the ETF's price decline, even if that is offset by the income from call-option premiums. Also critically important is that buy-write strategies, and alternative equity ETFs in general, are less tax-efficient and tend to have higher expense ratios than conventional equity ETFs.

If your goal is income, various income-generating ETF strategies that are more tax-efficient and lower cost than many alternative equity ETFs are readily available, notably fixed income ETFs and dividend-focused ETFs. Fixed income ETFs have less downside risk than equities, less correlation with equities, and more transparency than nontraditional strategies. Dividend-focused ETFs retain all upside potential and are more tax-efficient than nontraditional ETFs. That said, option strategies such as covered calls and protective puts have merit in certain market conditions.

If your goal is downside protection, remember that a diversified allocation of lower- or negative-correlated asset classes—ample fixed income allocation to balance equity risk—is Vanguard's best thinking. Otherwise, investors keen to explore option strategies can implement those by using option chains on Vanguard ETFs such as Vanguard S&P 500 ETF (VOO) and Vanguard Total Stock Market ETF (VTI), potentially at a lower cost relative to buy-write ETFs. Options on VOO, which trade more actively than those on iShares Core S&P 500 ETF (IVV), can potentially help clients seeking downside protection or enhanced yields at lower cost than using turnkey options.

Options on VOO and IVV



Notes: Both VOO and IVV seek to track the performance of the S&P 500 Index, a benchmark that measures the investment return of large-capitalization stocks. Both ETFs have an annual expense ratio of 0.03%. We chose to compare VOO and IVV due to their similar objectives of seeking to track the S&P 500 Index and their identical low expense ratios.

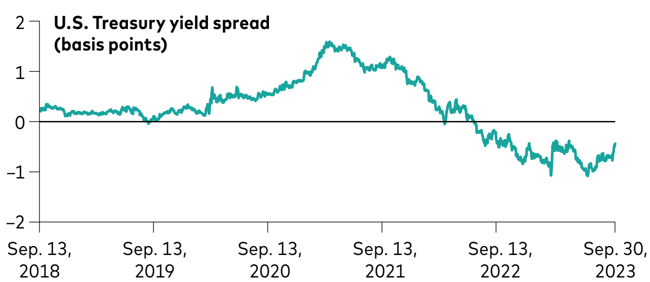
There may be other material differences between products that must be considered prior to investing.

Sources: Vanguard, based on data from Bloomberg from January 2, 2013, through September 20, 2023.

Risk of recession still hangs over the investment landscape

Although signals remain mixed, the possibility of recession still looms over the market. The market seems to be pricing in a higher chance for a soft landing, but Vanguard believes that the Fed is not yet finished raising rates, which keeps the possibility of recession in focus. Given the persistent uncertainty, investors must remain flexible, preparing for the prospect of a recession through diversification while looking carefully for opportunities of potentially reliable returns.

A persistent 10-year/2-year yield curve inversion



Note: Data reflect the difference in yield between 10-year Treasury constant maturity bonds and 2-year Treasury constant maturity bonds from September 13, 2018, through September 30, 2023.

Sources: Vanguard, based on data from the Federal Reserve.

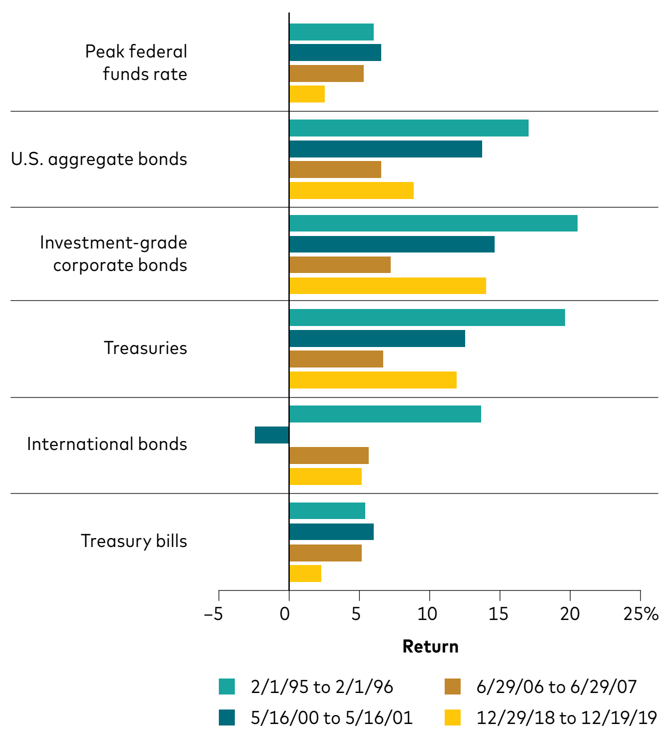
Recession outlook: On tenterhooks

On the one hand, the estimated 2.1% annualized second-quarter growth in gross domestic product (GDP) is above expectations, and job creation remains robust. On the other hand, certain economic indicators are signaling a potential recession, notably a yield curve inversion over the last year. Falling average hourly earnings, large increases in credit-card balances and delinquencies, and slowing housing prices and activity paint a more bearish picture. The yield curve inversion reached its deepest point in nearly 40 years early in the third quarter, a nadir depicted in the figure comparing the 10-year and 2-year Treasuries since September 2018.[4]

Calibrating fixed income allocation

For advisors concerned about recession, revisiting your allocation to Treasuries may be sensible. As mentioned, advisors retain a high allocation to high-yield credit, which is funded by under-allocating Treasuries.[5] Replacing some of that with Treasuries and investment-grade corporate bonds might provide a needed buffer in a recession. Notably, there's value across the entire curve. Short-term bonds have attractive yields when rates peak and could potentially rise in price when yields begin to fall. But being overindexed to the short end could become problematic. An allocation to long-term bonds helps maintain higher yields for when rates decline.

Historical bond performance one year after rates peaked



Notes: U.S. aggregate bonds are represented by the Bloomberg U.S. Aggregate Bond Index, investment-grade corporate bonds by the Bloomberg U.S. Corporate Bond Index, Treasuries by the ICE BofA US Treasury Index, international bonds by the Bloomberg Global Aggregate ex-USD Index, and Treasury bills by the Bloomberg 1–3 Month U.S. Treasury Bill Index. The peak federal funds rate represents the highest rate for each period shown.

Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Sources: Vanguard, based on data from Bloomberg.

4 Federal Reserve data, from June 1, 1976, through September 30, 2023.

5 Vanguard analysis, based on 599 fixed income sleeves observed in the period, with an average of six tickers per allocation sleeve, and Morningstar, Inc., as of June 30, 2023.

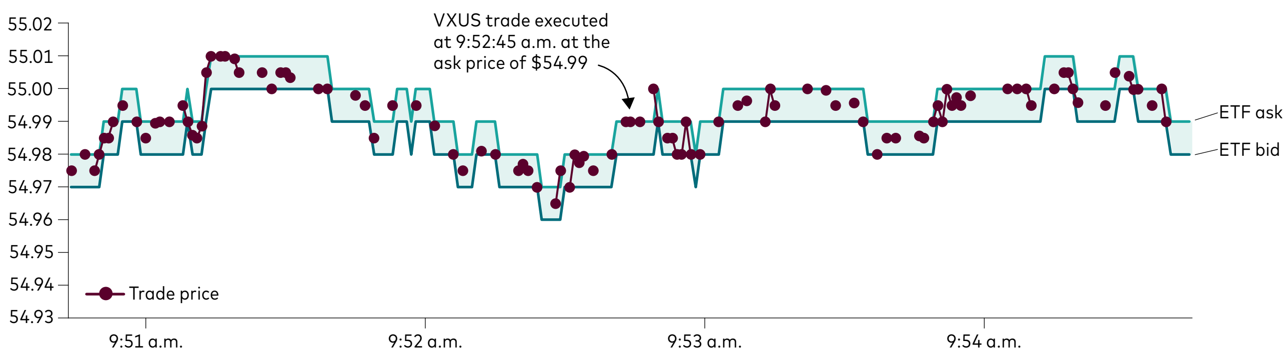
The value of using a block desk to find liquidity

As ETFs gain in popularity, larger trades are becoming more frequent. Once an ETF trade crosses a certain size threshold—say, over 5% of the ETF's average daily volume (ADV) or the quoted volume of the bid-ask—it's imperative that investors plan their trades carefully to help avoid excess trading costs. Understanding the true cost of an ETF goes beyond comparing expense ratios, and learning how to set up big trades is mission-critical.

A glimpse at a big ETF trade

In June 2023, our ETF Capital Markets Desk was engaged to consult on the execution of a $256 million trade of 4.65 million shares of Vanguard Total International Stock ETF (VXUS) on behalf of a client. The trade was large—163% of the ETF's ADV—and required careful planning to avoid excessive costs to the client. In the end, the trade was executed at the ETF's ask price without affecting the market price. The key approach was in making full use of the ETF's two sources of liquidity: the secondary market where ETFs are listed and the primary market where ETFs are created and redeemed. Using the right trading strategy, and at times using our ETF Capital Markets Desk for help, ETFs can allow investors to tap into these two liquidity sources to help achieve optimal trade execution.

Anatomy of a large VXUS execution



Notes: Figure illustrates a trade involving Vanguard Total International Stock ETF during the June 23, 2023, secondary-market trading session. The ETF bid-ask spread and actual ETF trades include applicable fees associated with transacting in individual foreign markets. They also reflect fair-value valuations made by market makers.

Source: Vanguard Spread Analytics tool.

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