

ETF Industry Perspectives

Q3 2024

Let the rate cuts begin

Vanguard ETF Industry Perspectives is our quarterly in-depth commentary, with analysis of important trends and how they're affecting ETF investors.

Contributors



Samuel Martinez, CFA
Head of Fixed Income Index
and ETF Product



Andrey Kotlyarenko, CFA
Equity Index Senior Investment
Product Manager



David Sharp
Senior ETF Capital
Markets Specialist

Key highlights

- **Equity spotlight:** Small-capitalization ETF flows are on the rise—a pattern that has historically coincided with interest rate cuts. Small-cap stocks do tend to outperform, but small-cap indexes don't all behave the same, so it's best to choose the strategy that matches that of the index providers in your portfolio.
- **Fixed income spotlight:** With rate cuts finally here, many new active fixed income ETFs face their first real test. Although most managers appear to be neutral on duration, different approaches when allocating to credit and subsectors emphasize the importance of getting to know how the active ETF you chose is navigating the current environment.
- **Industry trends:** Heightened volatility over the third quarter, which included the Federal Reserve's rate cut on September 18, showcased how ETFs can be affected. Bid-ask spreads immediately widened on the Fed's announcement, reinforcing the need when markets become volatile to follow best trading practices or to avoid trading altogether.

With high volatility also surrounding the global stock market sell-off on August 5, which pulled the Standard & Poor's 500 Index down by as much as 6%, index fund managers and advisors alike are reminded of the importance of controlling impulses and staying the course.

Equity spotlight

Do Fed rate cuts mean it's small-cap ETFs weather? History says yes

The Fed's 50-basis-point rate cut—its first cut since before the Fed began raising rates in response to the inflationary spike driven by the COVID-19 pandemic—created a fresh opportunity to look closely at small-cap equities, which historically have outperformed the broader market after rate cuts.

The lower cost of capital that has followed rate cuts has correlated with investors showing greater interest in smaller companies, whose growth prospects can be hampered when borrowing costs are high. With further monetary easing expected, investors seem more bullish on small-cap stocks, with Q3 flows jumping to \$16.5 billion, easily eclipsing the \$9.4 billion in inflows over the previous six months.¹

But how consistent is this trend? And does it pay off? During other rate-cutting cycles—such as the dot-com bubble, the global financial crisis, and the post-COVID pandemic recovery—interest in small-caps spiked. In the 12 months following those initial rate cuts, returns of the four main U.S. small-cap indexes performed strongly. More to the point, each of these indexes outperformed the broad equity market during those past rate-cutting cycles.

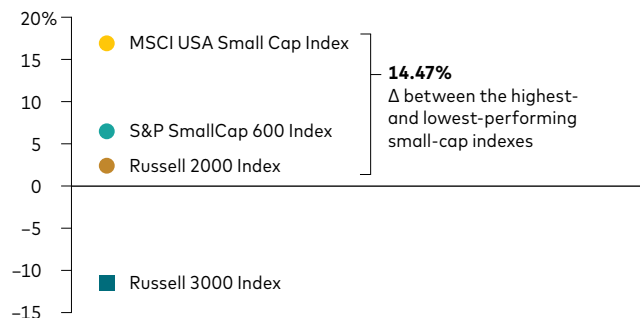
But crucially, each small-cap index isn't built quite the same as another, so their performances can diverge. In each of the downturns we looked at, returns were dispersed among the indexes shown on this page, so choosing an index that may prove to be the top performer in each rate-cutting cycle can be difficult.

This means that instead of choosing an ETF based on historical performance, investors should consider choosing the one whose index fits into their overall strategic allocation. To put a finer point on it, advisors should consider choosing a small-cap fund or ETF that's built by the same index provider as other equity holdings in the investor's portfolio.

This can help avoid duplicating holdings or creating gaps in exposure, and it can make calibrating expected risks and returns more accurate.

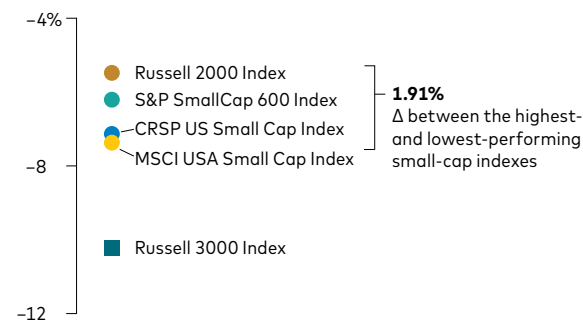
Small-caps have risen in popularity when the Fed has begun cutting rates

a. The dot-com bust



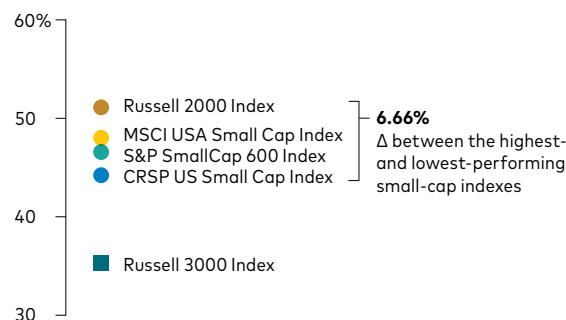
Sources: Vanguard, based on data from Morningstar, Inc., from January 1, 2001, through December 31, 2001.

b. The global financial crisis



Sources: Vanguard, based on data from Morningstar, Inc., from September 1, 2007, through August 31, 2008.

c. The COVID-19 pandemic



Sources: Vanguard, based on data from Morningstar, Inc., from March 1, 2020, through February 28, 2021.

Past performance is not a 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.

1 Source: Morningstar, Inc., as of September 30, 2024.

Fixed income spotlight

Know your active bond ETF manager

With the September cut that lowered the federal funds rate from 5.25%–5.5% to 4.75%–5%, markets have entered a new phase of loosening borrowing costs. This will be the first real test for the active core and core-plus fixed income ETFs that launched during the current cycle. An interesting facet of these active ETFs is that many managers didn't change their risk exposures—namely, duration and credit quality—all that much in the lead-up to the Fed's September cut.

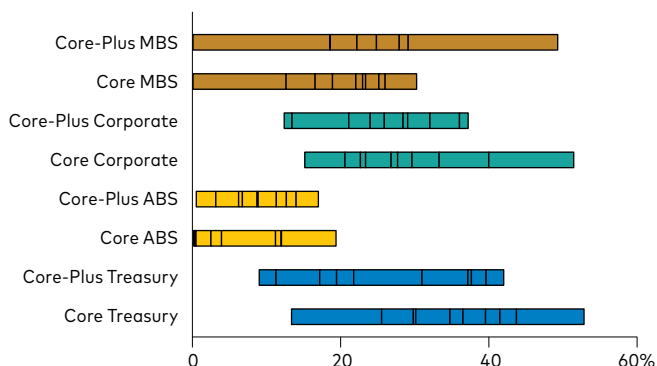
That's not necessarily as surprising as it may sound given the past year's uncertainty. Wagers on rates are difficult to get right, and errant calls can lead to potentially difficult conversations with clients. This explains why core bond ETFs remain within one year of their category's benchmark duration of 6.2 years, and core-plus ETFs remain within 1.5 years of that category's benchmark duration of 5.9 years.²

We observed that since 2024 began, credit spreads overall narrowed and the majority of managers let their portfolios follow suit, while other managers took the opportunity to trim their overall credit overweight to be closer to their benchmarks.³ In other words, managers of some active core and core-plus ETFs opted for higher credit quality, given the uncertainty in the economy, but most managers left their portfolios' credit exposure unchanged.

Also worth considering is that major or frequent allocation shifts to active portfolios have their own costs linked to trading, and those costs all detract from returns.

The more significant distinction is that different managers often have divergent approaches to implementing core and core-plus mandates. You can see this clearly in their subsector allocations.

Active core and core-plus bond ETFs can differ considerably



Notes: The chart depicts the sector allocations of the top 10 active core and core-plus ETFs by assets. The vertical lines signify the percentage allocation of each sub-asset class for each of those ETFs. The universe of ETFs was chosen from the Intermediate Core Bond and Intermediate Core-Plus Bond Morningstar categories that are benchmarked to the Bloomberg U.S. Aggregate Bond Index or the Bloomberg U.S. Universal Bond Index and that have less than 75% of their assets in one sub-asset class. MBS stands for mortgage-backed securities, and ABS stands for asset-backed securities.

Sources: Vanguard, based on data from Morningstar, Inc., as of September 30, 2024.

These sometimes different approaches within the same active fixed income categories suggest that advisors and their clients really need to know what an active manager is up to in order to fully understand how distinctly a particular manager may shape their portfolio allocations.

To better understand Vanguard's approach to the core and core-plus categories, see our quarterly [Active Fixed Income Perspectives](#).

² Sources: Vanguard analysis, based on data from Morningstar, Inc., and FactSet, as of September 30, 2024. For purposes of this analysis, core bond ETFs are benchmarked to the Bloomberg U.S. Aggregate Bond Index, and core-plus bond ETFs are benchmarked to the Bloomberg U.S. Universal Bond Index.

³ Source: Morningstar, Inc., from January 1, 2024, through September 30, 2024.

ETF industry trends

Fed decisions often lead to volatility and higher trading costs

What happens in volatile markets is often similar no matter what's driving the volatility, whether it's an unexpected headline, a presidential election, or even a Fed change in borrowing rates. While volatility can lead some investors to question their portfolio allocations, it doesn't mean that anything is suddenly wrong with the ETF they own.

Volatile markets can result from economic uncertainty that disrupts smooth trading, increasing liquidity and trading costs. Market makers tasked with maintaining a two-sided market by setting bids and asks on securities care about how quickly they can turn over ETF shares and how fast-moving security prices affect price uncertainty.

Thus, volatile markets lead market makers to widen bid-ask spreads so they can keep providing precious liquidity as they buy and sell ETFs at rapidly changing values. In other words, they use wider spreads to protect themselves from the risk of buying at one

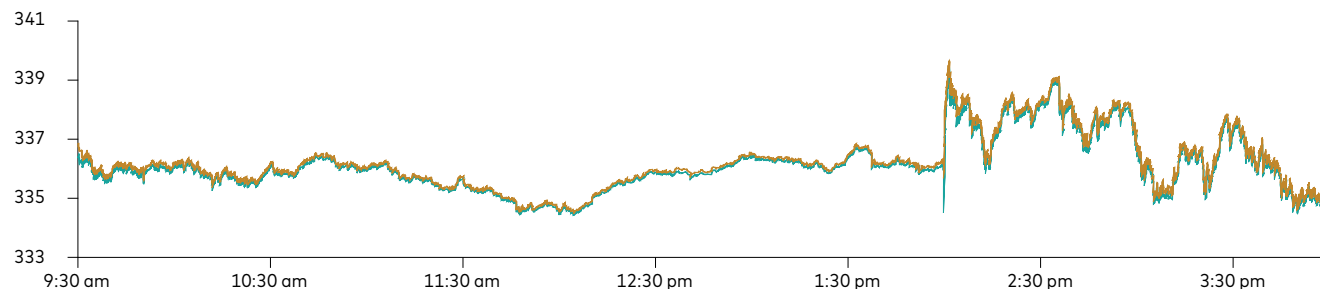
price and selling at a lower price. Crucially, those investors who wait to trade in calmer markets can avoid the higher costs of transacting in volatile ones.

While the August 5 market sell-off was a reminder of how volatility can seem to arrive suddenly, investors can also see it coming well in advance, as with the Fed's rate changes including its September 18 cut.

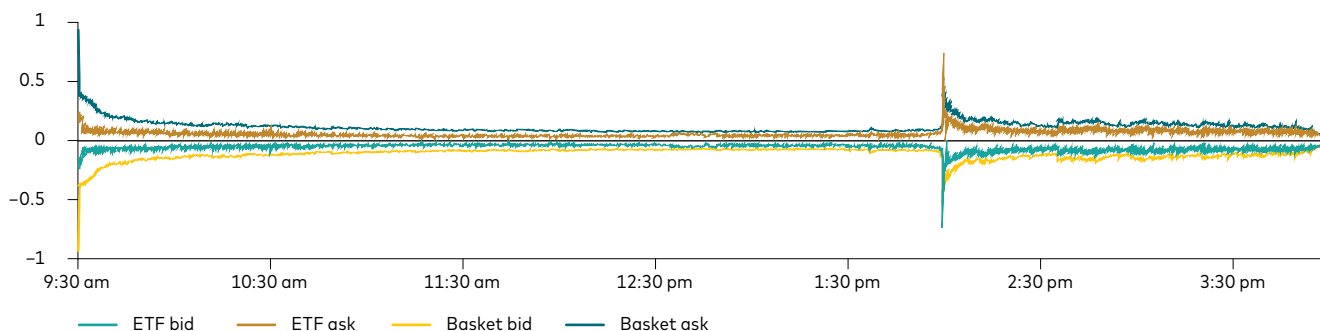
The next figure shows how bid-ask spreads on Vanguard S&P 500 Growth ETF (VOOG) widened when the Fed announced that rate cut at 2 p.m. Eastern time and how the spreads steadily narrowed over the rest of the trading session. While bid-ask spreads of a popular ETF like Vanguard S&P 500 ETF (VOO) snapped back to normal rather quickly, spreads on the average ETF can remain wider for longer, as shown for VOOG. The figure illustrates that it's best, if possible, to steer clear of trading in a volatile market and instead transact once volatility subsides.

VOOG's spreads on September 18 show volatility's effect on trading costs

a. VOOG prices on the day of the Fed's meeting



b. VOOG spreads on the day of the Fed's meeting



Notes: The first chart plots prices of VOOG throughout the September 18, 2024, trading session. The second chart shows bid-ask spreads on VOOG and its underlying constituents during that session.

Source: Vanguard Spread Analytics tool.

The only way to not pay the price of volatility is to avoid transacting when the market is upset. But if you absolutely must trade in a volatile market, it's crucial to do so in full expectation of higher trading costs.

Whenever you're trading, keep these variables in mind:

- **Order type:** Consider using a limit order or marketable limit order to help protect yourself from unexpected price movements.⁴ For larger, "high touch" trades, you'll likely need to work with your custodian's block trading desk to execute the order with greater discretion. Vanguard's ETF Capital Markets Team is one such desk that can assist with these trades.
- **Trading during key events and economic announcements:** As we discussed in the example of how markets behave around Fed announcements, placing trades leading up to and immediately following the release of economic news or policy decisions can expose those trades to more volatility. If possible, you may want to avoid trading at those times to help clients achieve better outcomes.
- **Time of day:** Opening/closing auctions can have imbalances that expose investors to heightened risk of trading ETFs at prices that differ from the value of their underlying securities. While the auction price discovery is still taking place, you may want to avoid trading if possible in the first 15 minutes of the day, as spreads could widen. Furthermore, large trades in the last 15 minutes of the day can lead to higher impact costs.
- **Considerations if you must trade:** Take measure of how any market volatility is affecting the trade. Then adjust your approach and your expectations accordingly.

⁴ A marketable limit order is one that is placed for immediate execution. For a marketable buy limit order, the limit price is set at or above the ask price. For a marketable sell limit order, the limit price is set at or below the bid price.

Was the August 5 sell-off much ado about nothing?

Japan's July 31 rate hike ended up fueling global market volatility. The S&P 500 Index fell 6% from August 1 through August 5, including a 3% drop on August 5 alone.⁵ Credit spreads widened in a market move that reflected investor concern that perhaps the U.S. economy was at last nearing recession after rebounding from the COVID-19 shock.

Credit spreads widened initially as investors dumped credit and rushed into risk-free U.S. Treasuries. But shortly afterward, spreads again tightened, and within two weeks the stock market climbed back to where it was on the eve of the disruption.

The August volatility and the market's subsequent return to normality show how market events such as these are often a blip on the radar. Those who stuck to their plans came out of that stretch of market volatility no worse for the wear.

For bond index fund managers, periods of volatility reinforce the importance of carefully managing risk in their portfolios. Because such strategies can't own every bond in an index, they must seek to match the index's risk factors, including key duration, credit spreads, and sectors. This ensures that exposures never diverge too much from the index so that episodes of volatility don't expose the fund to unintended risk. Such careful management helps avoid blowouts in tracking error when markets become roiled.

The importance of long-term focus and a stay-the-course sensibility is no different for asset managers than it is for investors and for advisors keen on managing concerned clients. It's important to avoid overextending yourself, in terms of making big changes to allocations, and to remain consistent in volatile markets.

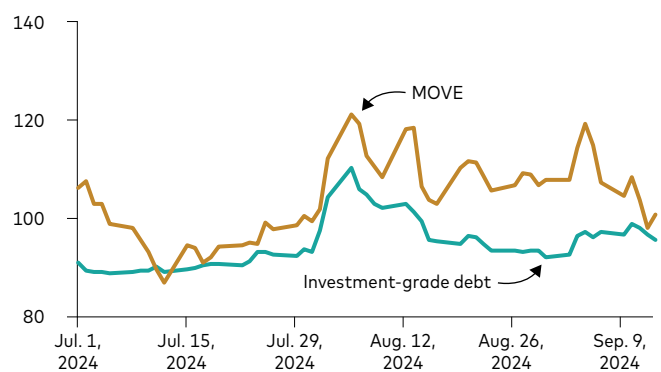
For advisors who successfully tamp down the worst impulses of clients who may be in a panic, the payoff has historically been the preservation

of long-term returns. For index fund managers and their investors, it means preserving returns close to the fund's benchmark (that is, maintaining tight tracking error).

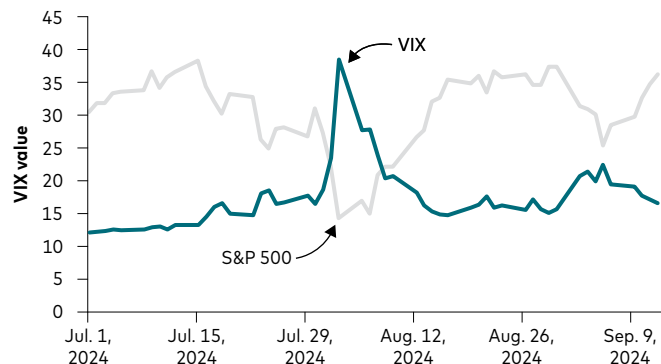
The takeaway couldn't be clearer: The August market disruption was almost a nonevent for those who didn't get spooked. Less has historically meant more when it comes to making changes to strategic allocations.

Market volatility surrounding August 5 came and went relatively quickly

a. Credit spreads widened, then narrowed



b. The S&P swooned, then bounced back



Notes: The first chart displays the credit spread (OAS curve) of investment-grade debt from July 1, 2024, through September 13, 2024, as measured by the Bloomberg U.S. Corporate Total Return Value Unhedged USD Index relative to the Merrill Lynch Option Volatility Estimate Index (MOVE). The second chart displays the credit spread over the same period, as measured by the S&P 500 Index versus the CBOE Volatility Index (VIX).

Source: Bloomberg.

⁵ Source: Morningstar, Inc., for August 1-5, 2024.

ETF industry snapshot

Product strategy

	Assets	Q3 cash flow
Index	\$9.2T	\$208.7B
Active	\$0.8T	\$73.0B

Source: Morningstar, Inc., as of September 30, 2024.

Cash flows into broad equity categories (\$B)

	Q3 cash flow
U.S.	\$131.9
International	\$13.6
Sector	\$5.0
Nontraditional	\$6.4

Source: Morningstar, Inc., as of September 30, 2024.

U.S. equity Q3 cash flows by style (\$B)

	Value	Blend	Growth
Large-cap	\$15.5	\$91.0	\$11.9
Mid-cap	-\$1.6	\$2.7	-\$4.2
Small-cap	\$3.8	\$11.7	\$1.0

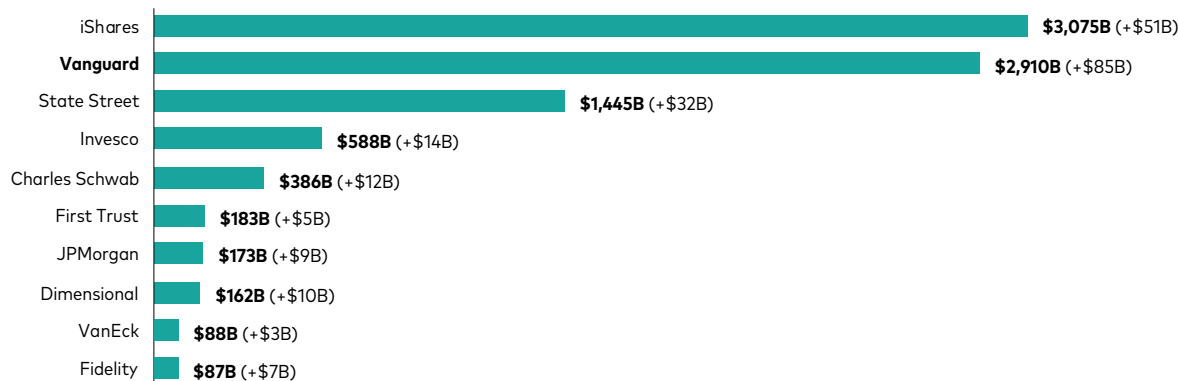
Source: Morningstar, Inc., as of September 30, 2024.

Number of ETFs available

	Number
ETF launches in Q3 2024	206
ETF closures in Q3 2024	39
Total U.S. ETFs	3,718

Source: Morningstar, Inc., as of September 30, 2024.

Issuer assets and Q3 cash flows



Source: Morningstar, Inc., as of September 30, 2024.

Investment categories

	Assets	Q3 cash flow
Equity	\$7.8T	\$156.9B
Fixed income	\$1.8T	\$100.3B
Other	\$0.4T	\$24.6B

Source: Morningstar, Inc., as of September 30, 2024.

Cash flows into broad fixed income categories (\$B)

	Q3 cash flow
U.S. taxable	\$88.8
International	\$4.6
Municipal	\$6.9

Source: Morningstar, Inc., as of September 30, 2024.

U.S. taxable fixed income Q3 cash flows (\$B)

	Short	Intermediate	Long
Government	\$5.5	\$8.1	\$11.0
Investment-grade	\$10.1	\$34.3	\$5.0
High-yield		\$6.2	
Other		\$8.3	

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

Source: Morningstar, Inc., as of September 30, 2024.

Vanguard ETFs®

Equity

Large-cap	Ticker	Expense ratio
Total Stock Market	VTI	0.03%
Russell 3000	VTHR	0.10%
Mega Cap	MGC	0.07%
Mega Cap Growth	MGK	0.07%
Mega Cap Value	MGV	0.07%
S&P 500	VOO	0.03%
S&P 500 Growth	VOOG	0.10%
S&P 500 Value	VOOV	0.10%
Russell 1000	VONE	0.08%
Russell 1000 Growth	VONG	0.08%
Russell 1000 Value	VONV	0.08%
Large-Cap	VV	0.04%
Growth	VUG	0.04%
Value	VTV	0.04%
Mid-cap	Ticker	Expense ratio
Extended Market	VXF	0.06%
Mid-Cap	VO	0.04%
Mid-Cap Growth	VOT	0.07%
Mid-Cap Value	VOE	0.07%
S&P Mid-Cap 400	IVOO	0.10%
S&P Mid-Cap 400 Growth	IVOG	0.15%
S&P Mid-Cap 400 Value	IVOV	0.15%
Small-cap	Ticker	Expense ratio
Small-Cap	VB	0.05%
Small-Cap Growth	VBK	0.07%
Small-Cap Value	VBR	0.07%
S&P Small-Cap 600	VIOO	0.10%
S&P Small-Cap 600 Growth	VIOG	0.15%
S&P Small-Cap 600 Value	VIOV	0.15%
Russell 2000	VTWO	0.10%
Russell 2000 Growth	VTWG	0.15%
Russell 2000 Value	VTWV	0.15%

International/global	Ticker	Expense ratio
Total World Stock	VT	0.07%
Total International Stock	VXUS	0.08%
FTSE All-World ex-US	VEU	0.07%
FTSE All-World ex-US Small-Cap	VSS	0.08%
Global ex-U.S. Real Estate	VNQI	0.12%
FTSE Developed Markets	VEA	0.06%
FTSE Europe	VGK	0.09%
FTSE Pacific	VPL	0.08%
FTSE Emerging Markets	VWO	0.08%

ESG	Ticker	Expense ratio
ESG U.S. Stock	ESGV	0.09%
ESG International Stock	VSGX	0.12%

Sector	Ticker	Expense ratio
Consumer Discretionary	VCR	0.10%
Consumer Staples	VDC	0.10%
Energy	VDE	0.10%
Financials	VFH	0.10%
Health Care	VHT	0.10%
Industrials	VIS	0.10%
Information Technology	VGT	0.10%
Materials	VAW	0.10%
Real Estate	VNQ	0.13%
Communication Services	VOX	0.10%
Utilities	VPU	0.10%

Dividend	Ticker	Expense ratio
Dividend Appreciation	VIG	0.06%
International Dividend Appreciation	VIGI	0.15%
High Dividend Yield	VYM	0.06%
International High Dividend Yield	VYMI	0.22%

Factor (actively managed)	Ticker	Expense ratio
U.S. Minimum Volatility	VFMV	0.13%
U.S. Momentum Factor	VFMO	0.13%
U.S. Multifactor	VFMF	0.18%
U.S. Quality Factor	VFQY	0.13%
U.S. Value Factor	VFVA	0.13%

Note: Expense ratios are as of each ETF's most recent prospectus.

Source: Vanguard, as of September 30, 2024.

Vanguard ETFs

Fixed income

Broad market	Ticker	Expense ratio
Total Bond Market	BND	0.03%
Core Bond	VCRB	0.10%
Core-Plus Bond	VPLS	0.20%
Short-Term Bond	BSV	0.04%
Intermediate-Term Bond	BIV	0.04%
Long-Term Bond	BLV	0.04%
Treasury/agency	Ticker	Expense ratio
Short-Term Treasury	VGSH	0.04%
Intermediate-Term Treasury	VGIT	0.04%
Long-Term Treasury	VGLT	0.04%
Extended Duration Treasury	EDV	0.06%
Short-Term Inflation-Protected Securities	VTIP	0.04%
Mortgage-Backed Securities	VMBS	0.04%
Investment-grade	Ticker	Expense ratio
Short-Term Corporate Bond	VCSH	0.04%
Intermediate-Term Corporate Bond	VCIT	0.04%
Long-Term Corporate Bond	VCLT	0.04%
Total Corporate Bond	VTC	0.04%
Ultra-Short Bond	VUSB	0.10%

International/global	Ticker	Expense ratio
Total International Bond	BNDX	0.07%
Total World Bond	BNDW	0.05%
Emerging Markets Government Bond	VWOB	0.20%
Municipal	Ticker	Expense ratio
Tax-Exempt Bond	VTEB	0.05%
Short-Term Tax-Exempt Bond	VTES	0.07%
Intermediate-Term Tax-Exempt Bond	VTEI	0.08%
California Tax-Exempt Bond	VTEC	0.08%
ESG	Ticker	Expense ratio
ESG U.S. Corporate Bond	VCEB	0.12%

Note: Expense ratios are as of each ETF's most recent prospectus.

Source: Vanguard, as of September 30, 2024.

Important information

For more information about Vanguard funds or ETF Shares, contact your financial advisor to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information are contained in the prospectus; read and consider it carefully before investing.

Vanguard ETF Shares are not redeemable with the issuing Fund other than in very large aggregations worth millions of dollars. Instead, investors must buy and sell Vanguard ETF Shares in the secondary market and hold those shares in a brokerage account. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

Past performance is no guarantee of future results.

All investing is subject to risk, including the possible loss of the money you invest.

Investments in bonds are subject to interest rate, credit, and inflation risk.

Bond funds are subject to the risk that an issuer will fail to make payments on time, and that bond prices will decline because of rising interest rates or negative perceptions of an issuer's ability to make payments.

Prices of mid- and small-cap stocks often fluctuate more than those of large-company stocks.

U.S. government backing of Treasury or agency securities applies only to the underlying securities and does not prevent share-price fluctuations. Unlike stocks and bonds, U.S. Treasury bills are guaranteed as to the timely payment of principal and interest.

Funds that concentrate on a relatively narrow market sector face the risk of higher share-price volatility.

Be aware that fluctuations in the financial markets and other factors may cause declines in the value of your account. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income. Diversification does not ensure a profit or protect against a loss.

CFA® is a registered trademark owned by CFA Institute.

Vanguard®

© 2024 The Vanguard Group, Inc. All rights reserved. Vanguard Marketing Corporation, Distributor of the Funds.

ETFTB 112024