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Active Fixed Income Perspectives Q4 2022: Tenacity through turmoil

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Key takeaways

Performance

Central banks globally—and especially the Federal Reserve—continue to hoist rates to combat broad-based inflation, which has driven a historically bad year for bonds. Credit spreads have held mostly steady.

Looking ahead

We are not confident that we have seen the peaks in U.S. Treasury rates. Nonetheless, higher yields mean bonds look better going forward. Credit spreads have room to widen further, but the extra income can better absorb market turbulence. A recession is likely next year. We see a more mild version, but the trajectory of inflation will dictate how restrictive monetary policy will need to go.

Approach

We believe the most prudent approach is to focus on a core allocation to higher-quality securities that are less sensitive to a weakening global economy. As a complement to that, elevated market volatility has created more dispersion and better entry points in select lower-quality bonds.

The best and worst of times

After years of easy monetary policy, central banks now compete on interest rate hikes. Inflation was said to be transitory; now it's everywhere. Rising, and attractive, bond yields contrast with tumbling prices and capital losses. Cash positions are flush as fixed income markets struggle with liquidity.

This is a time of record-low U.S. unemployment, climbing tax receipts, and, for some, the highest wage increases in a generation. Yet the arrival of a recession appears inevitable. A hard winter, and perhaps a widening war across Europe, awaits.

The COVID-19 pandemic led to unprecedented stimulus, which concluded an era of ever lower interest rates and a bull market in bonds that stretched back to 1981. For fixed income, it was the best of times.

Now, central banks have been forced to tighten quickly, which has upended markets. Investors fear the Fed. The situation is worthy of Charles Dickens.

Bonds look better

Policymakers have made it abundantly clear that little else matters until price stability is attained, which means near-term volatility is likely. However, the risk-reward profiles of various market sectors—including Treasuries, corporates, emerging markets, and long-term municipals—are more attractive than they were six months ago.

Ironically, the worse returns get, the better bonds should look in the future. Investors need tenacity through turmoil. Ever higher coupons have changed expected return calculations and brought back bonds' long-established use case.

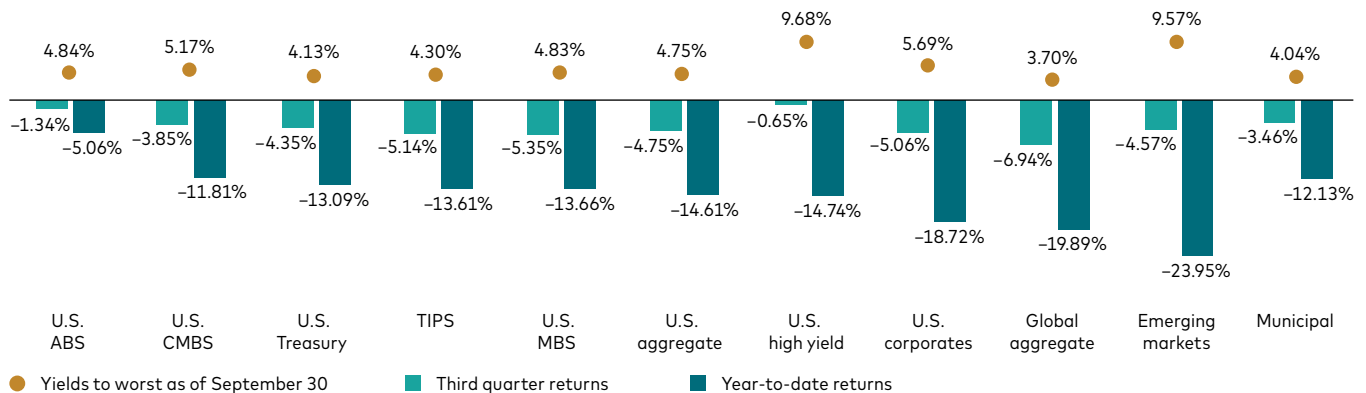
Comparing the dividend yield on the S&P 500 against Treasuries shows just how far we've come this year. For investors who have added new, more esoteric positions in search of yield or uncorrelated assets such as private credit, it seems a good time to reconsider old-fashioned long-term asset allocation.

Bond yields blow past dividend yields



Source: FactSet, as of September 30, 2022.

Fixed income sector returns and yields



Sources: Bloomberg indexes and J.P. Morgan EMBI Global Diversified Index, as of September 30, 2022.

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.

Rates and inflation

Not that long ago, many observers wondered if the 10-year Treasury would ever crack 2% again; now it hovers around 4%. We expect the federal funds rate to peak at or above 4.5% in the first quarter of the year and to largely remain there throughout 2023.

When inflation cools, we see more stability in interest rates. The Fed will slow its pace of rate hikes, and we'll see weakening in the labor market. With that, there will be a stronger case to add duration exposure, which should prove valuable in a weak economic backdrop and when an eventual pivot toward rate cuts occurs.

Global rates ante

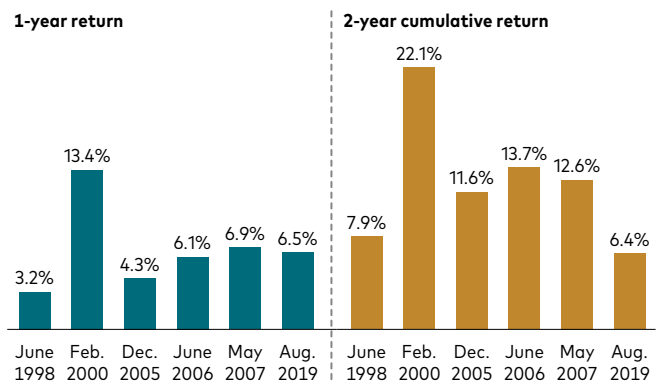
Outside the U.S., there are still some risks to developed markets rates. There could be fresh inflation shocks or events, as recently seen in the United Kingdom, where governments work at cross-purposes with monetary authorities. U.K. gilts returned -13.6% for the quarter.

Central bank rates should hit 2.5% in the euro zone, 3.5% in Australia, and 5% in the U.K. in 2023. Asian central banks were late to begin hiking, and they will be compelled to meet the global rates ante or it will be difficult to defend their currencies.

Negative rates are nearly a thing of the past now; they can be found only in Japan, where the central bank is still trying to whip up more inflation.

The inversion between the 2-year and 10-year Treasury yields has some investors spooked, as many believe it's an early sign of a recession. Recent history, however, has shown that bond investors have done well in the two years after an inversion has occurred.

Returns on the Bloomberg U.S. Aggregate Bond Index after 2-year and 10-year U.S. Treasury yields inverted

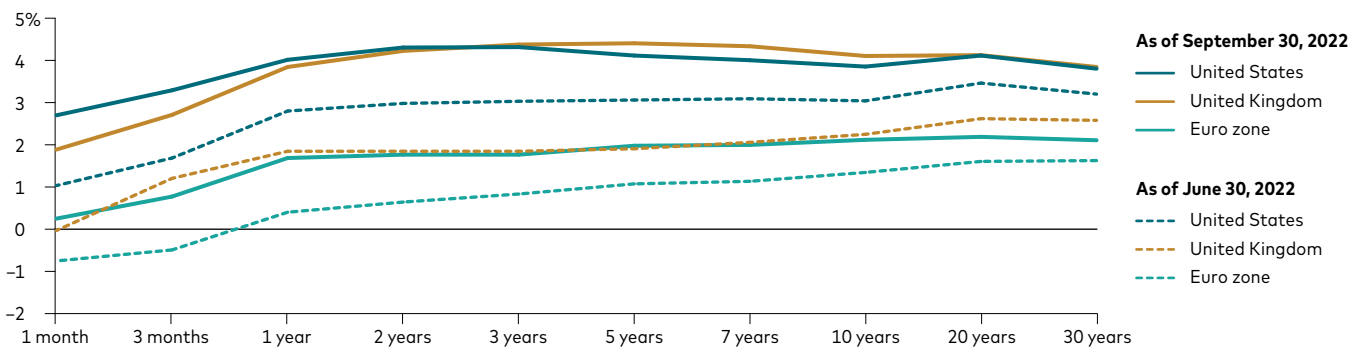


Note: Returns shown measure the 1-year and 2-year cumulative performance of the Bloomberg U.S. Aggregate Bond Index starting the month after the listed inversion dates.

Source: Vanguard, using Bloomberg data through September 30, 2022.

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.

Government rates: Change in yield curve over the third quarter



Source: Bloomberg, as of September 30, 2022.

Mortgage-backed securities

A knock-on effect of higher Treasury rates has been a dramatic increase in mortgage rates, which recently hit 16-year highs of near 7%. As a result, housing affordability has plummeted, and a huge majority of mortgage borrowers can no longer benefit from refinancing their existing loan.

Meanwhile, two of the largest buyers of mortgage-backed securities (MBS) have stepped away from the market: The Fed is trying to reduce its balance sheet, and commercial banks pulled back their purchases because of high volatility.

This means the marginal buyer for MBS today is more conscious of both absolute and relative valuations. MBS pricing has adjusted and become more attractive. This year we've moved from an underweight position in MBS to a modest overweight. We see pockets of value in higher-coupon on-the-run securities and in select collateralized mortgage obligations and agency CMBS sectors.

Implications for Vanguard funds

- Active duration and curve positioning offer less upside until we're closer to the end of the hiking cycle. Once there, rate cut expectations should cause the curve to steepen.
- MBS valuations have become more attractive, but a drop-off in investor demand warrants a selective approach.

Credit markets

Uncertainty around inflation and the rising probability of a recession have pushed spreads wider all year long. Nonetheless, strong credit fundamentals, lighter new issuance, and periods of opportunistic buying have helped keep spreads within a range.

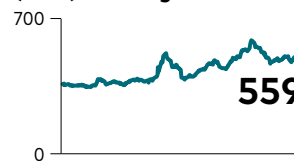
We added credit risk in midsummer when market pessimism had pushed spreads to cheap levels. Since then, we've been more conservatively positioned for what we believe will be a bumpy road ahead.

We're keeping overall credit exposure low while looking for bargains in segments of the market that overcorrect. While we may be closer to the highs in rates, we are mindful that if a recession occurs next year, credit spreads have room to increase further.

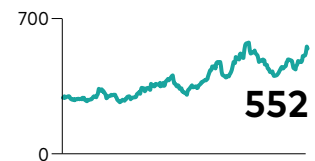
Credit spreads mostly held steady in third quarter

(in basis points, from September 30, 2021, through September 30, 2022)

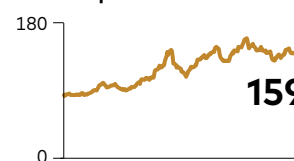
Emerging markets (USD) sovereigns



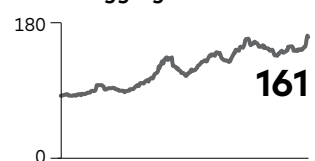
U.S. high yield



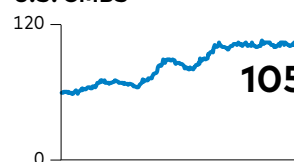
U.S. corporates



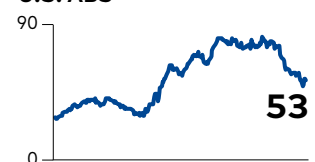
Global aggregate credit



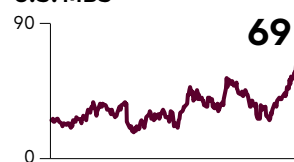
U.S. CMBS



U.S. ABS



U.S. MBS



Sources: Bloomberg indexes and J.P. Morgan EMBI Global Diversified Index, as of September 30, 2022.

Investment-grade corporates

The spread widening in high-grade corporates this year has been orderly. Spreads have stayed within a range of 30 basis points (bps) since the end of April, but they seem destined to break higher with the Fed communicating a more aggressive stance. We view today's valuations as cheap, but clouded by the macroeconomic backdrop.

We have focused on the higher-quality, defensive segments of the sector. We've seen some weakening in consumers and more cautious guidance from companies.

Many corporations still sport strong balance sheets because they have been more disciplined than in prior cycles. Outside of a substantial market downturn, we see a low likelihood of a large downgrade wave.

Opportunities in Europe

The continued strength of the dollar is putting pressure on the profit margins of companies with global revenue streams and has pushed many overseas buyers away. In Europe, valuations reflect recession levels, which provides some credit opportunities in companies better positioned to navigate the slowdown in growth.

High-yield corporates

The question in the high-yield market today is whether the cup is half empty or half full. On one hand, credit spreads 500 bps above Treasuries would not normally be viewed as attractive this late in the cycle. However, the sector's 9.50% yield and average dollar price of \$85 both indicate the sector is cheap relative to history.

The high-yield market has gone through several default cycles over the last decade, which has left the sector more resilient. Still, today's spread levels do not provide adequate compensation to justify a broad overweight.

Our preference is for higher-quality tranches. We are overweight BBs, underweight Bs, and cautious in CCC rated issues. We also see opportunities to capture attractive carry in

select high-yield loans. Security selection will be the most important driver of performance in the coming quarters.

Emerging markets

In absolute terms, emerging markets (EM) credit suffered heavy losses this year. While the majority of the negative return is attributed to rising U.S. Treasury yields, the move in credit spreads has further contributed to the downside.

EM was hurt by Russia's invasion of Ukraine and has remained under pressure throughout the year because of concerns over global growth and investor outflows.

While we are cautious for now, we believe a lot of negative news has already been priced in. With higher yields generating substantial carry for EM investors, as well as reduced new issue supply and attractive valuations, we see potential for strong returns over the coming year.

EM returns can also benefit from opportunities in local markets and EM corporate bonds. EM central banks began their hiking cycles more than a year ago and most should conclude by year-end. As we get closer to the end of the Fed's hiking cycle, we expect to see additional opportunities in local-market EM rates.

EM currency exposure will offer pockets of value if the dollar weakens. Many EM corporate issuers retain industry-leading balance sheets and are in a position to retire debt at discount levels, potentially improving their credit profile.

Implications for Vanguard funds

- Credit valuations have steadily improved, but spreads have room to back up if the economy slows. We are keeping overall exposure low and looking for opportunities when markets overshoot fair value.
- We see the best opportunities in more defensive sectors of the corporate market and higher-quality EM sovereigns. An up-in-quality tilt should provide more cushion.

Municipal bonds

The highest yields in over a decade

Municipal yields rose alongside most other fixed income sectors; as of September 30, the Bloomberg Municipal Bond Index yielded 4.04%, an offer not seen in over a decade.

Municipals look particularly attractive when compared with other sectors on a tax-equivalent basis. The 6.8% tax-equivalent yield for the broad municipal index is a full percentage point higher than the lower-rated U.S. investment-grade corporate market. Investors in top tax brackets living in certain states can access yields more comparable with those of U.S. high yield. These yields should be placed in context with municipals exhibiting the best credit fundamentals seen in the last 20 years, as discussed last quarter.

Investors who are waiting for a bottom face snapback risk. Crossover buyers (e.g., banks and insurance companies) may buy into attractive valuations, which historically has spurred rallies that retail investors pile into. Investors are often best suited to stay invested over the long term.

Scant default rates

The current value stands out even further when historical default rates are considered. Investment-grade municipals have experienced a 0.09% cumulative default rate on average over rolling 10-year periods, compared with 2.17% for global investment-grade corporates and 29.92% for global high yield. (All rates per Moody's, using data from 1970 through 2021.)

Higher quality at attractive levels

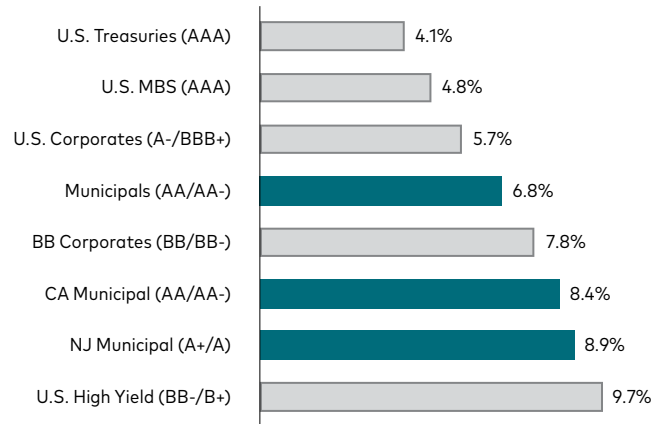
With a potential recession in view, we are buying higher-quality municipal bonds at these attractive levels. Correspondingly, we are adding to all-weather sectors like water and sewer, toll roads, and higher-rated state, city, and local general obligation debt.

Holding a barbell

We are mostly neutral in duration while our funds concurrently hold a barbell position, with larger amounts of both cash and longer-maturity issues.

Municipal bonds get steadily cheaper further out the curve, with 30-year AAA bonds yielding more than federally taxable U.S. Treasuries. When fund inflows resume and spark a rally, our excess cash positions can be used to extend our exposure into the market.

Tax-equivalent yields stand tall



Notes: Tax-equivalent yield is calculated using a 40.8% tax bracket, which includes a 37.0% top federal marginal tax rate and a 3.8% net investment income tax to fund Medicare. The California and New Jersey tax-equivalent yield calculations include the highest state income tax bracket in those states.

Sources: Bloomberg indexes, using yield-to-worst data as of September 30, 2022.

AAA muni/Treasury ratio

2 year	5 year	10 year	30 year
72%	77%	85%	105%

Source: Bloomberg, as of September 30, 2022.

Implications for Vanguard funds

- We favor remaining higher in quality as the Fed continues to tighten credit conditions. These bonds represent value while also helping to stabilize portfolios in a recession.
- The worst of rising yields is likely behind us. Investors with longer-term horizons for their municipal allocations should consider going long, where bonds are particularly cheap.

Active fixed income at Vanguard

		Admiral™ Shares or ETF ticker symbol	Expense ratio*
Vanguard active bond funds or ETFs	Treasury/Agency		
	GNMA†	VFIJX	0.11%
	Inflation-Protected Securities	VAIPX	0.10
	Intermediate-Term Treasury	VFIUX	0.10
	Long-Term Treasury	VUSUX	0.10
	Short-Term Federal	VSGDX	0.10
	Short-Term Treasury	VFIRX	0.10
	Investment-grade corporate		
	Core Bond	VCOBX	0.10%
	Core-Plus Bond	VCPAX	0.20
	Intermediate-Term Investment-Grade	VFIDX	0.10
	Long-Term Investment-Grade†	VWETX	0.12
	Short-Term Investment-Grade	VFSUX	0.10
	Ultra-Short-Term Bond	VUSFX	0.10
	Ultra-Short Bond ETF	VUSB	0.10
	Below-investment-grade		
	High-Yield Corporate†	VWEAX	0.13%
	Global/international		
	Emerging Markets Bond	VEGBX	0.40%
	Global Credit Bond	VGCAx	0.25
Vanguard active municipal bond funds	National municipal		
	Short-Term Tax-Exempt	VWSUX	0.09%
	Limited-Term Tax-Exempt	VMLUX	0.09
	Intermediate-Term Tax-Exempt	VWIUX	0.09
	Long-Term Tax-Exempt	VWLUX	0.09
	High-Yield Tax-Exempt	VWALX	0.09
	State municipal		
	California Intermediate-Term Tax-Exempt	VCADX	0.09%
	California Long-Term Tax-Exempt	VCLAX	0.09
	Massachusetts Tax-Exempt†	VMATX	0.13
	New Jersey Long-Term Tax-Exempt	VNJUX	0.09
	New York Long-Term Tax-Exempt	VNYUX	0.09
	Ohio Long-Term Tax-Exempt†	VOHIX	0.13
	Pennsylvania Long-Term Tax-Exempt	VPALX	0.09

Active fixed income leadership team



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Global Head of Fixed
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30 years' experience



Chris Alwine, CFA
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Roger Hallam, CFA
Global Head of Rates
22 years' experience



Paul Malloy, CFA
Head of U.S.
Municipals
17 years' experience

Taxable bond
\$227B AUM
16 FUNDS/ETF**

Municipal bond
\$199B AUM
5 NATIONAL FUNDS / 7 STATE-SPECIFIC FUNDS

25+
PORTFOLIO
MANAGERS

35+
TRADERS

60+
CREDIT RESEARCH
ANALYSTS

130+
DEDICATED
TEAM MEMBERS

* As reported in each fund's prospectus. A fund's current expense ratio may be higher or lower than the figure shown.

† Investment advisor: Wellington Management Company LLP.

* Investor Shares available only. There is no minimum investment required for advised clients.

** Includes funds advised by Wellington Management Company LLP.

Note: Data as of September 30, 2022.

For more information about active fixed income, speak with your financial advisor.

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Past performance is no guarantee of future results. All investing is subject to risk, including possible loss of principal. Diversification does not ensure a profit or protect against a loss.

Bonds of companies based in emerging markets are subject to national and regional political and economic risks and to the risk of currency fluctuations. These risks are especially high in emerging markets.

High-yield bonds generally have medium- and lower-range credit-quality ratings and are therefore subject to a higher level of credit risk than bonds with higher credit-quality ratings. 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.

Bond funds are subject to interest rate risk, which is the chance bond prices overall will decline because of rising interest rates, and credit risk, which is the chance a bond issuer will fail to pay interest and principal in a timely manner or that negative perceptions of the issuer's ability to make such payments will cause the price of that bond to decline.

Investments in bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk.

Although the income from a municipal bond fund is exempt from federal tax, you may owe taxes on any capital gains realized through the fund's trading or through your own redemption of shares. For some investors, a portion of the fund's income may be subject to state and local taxes, as well as to the federal Alternative Minimum Tax.

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.

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