Quick thoughts

Seeking income in a rising rate world

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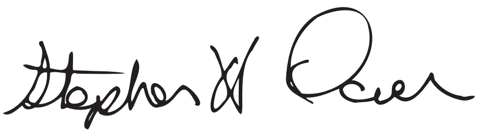
The search for income has become more complicated as inflation soars to four-decade highs while the global economy wrestles with the continued supply and demand imbalances from the pandemic and war in Ukraine. Meanwhile, broad monetary policy tightening is raising concerns about slowing economic growth.

Income is an effective tool to lower the volatility of an investment in this uncertain environment by providing steady cash flow as principal value is fluctuating. Income opportunities exist for investors willing to broaden the potential sources of yield.

- **Dividend-paying stocks remain an important source of income.** Given the uncertain economic backdrop, investors should remain selective and lean on quality dividend plays including stocks of companies with robust free cash flows and long track records of growing dividends. Companies that pass though inflated costs, like listed infrastructure and real estate, can be useful sources of income and potential inflation hedges.
- **If inflation remains elevated and central banks respond with higher-than-expected rate increases, investors should consider using short-duration instruments to mitigate interest rate risks.** High-yield bonds and floating rate notes are good candidates in this environment given their higher nominal yields, low duration and relatively lower volatility. These instruments have better quality and stronger fundamentals than in the past, and unless economic growth falls dramatically, there is likely to be a low rate of defaults.
- **If inflation and rate increases do not rise above current market expectations, there is a case for longer-duration instruments.** While bonds have been both more volatile than equities and more correlated to equities in the first part of 2022, this is not the case historically. If inflation slows and the economy does not fall into recession, the diversification effect (ballast) of longer-duration government bonds could return.
- **Private commercial real estate exhibits lower volatility relative to stocks, higher yields relative to traditional fixed income assets, and low correlation to returns from equities and bonds.** Given that real estate leases tend to have contractual rent increases that are linked directly to annual inflation rates, the asset class has historically acted as a robust hedge against inflation.
- **Active management will be more critical going forward.** Higher volatility can provide opportunity to reset allocations. Achieving a diversified portfolio will likely include a more creative re-allocation of traditional assets and a wider array of alternative assets. Re-allocating toward your long-term targets can help maintain balance in portfolios.



Rising inflation expectations

Investors increasingly find themselves navigating unchartered waters marked by high inflation, hawkish central banks, pandemic-related supply chain disruptions, an uncertain geopolitical landscape and growing risks of a significant economic slowdown. The Russia-Ukraine war continues to stoke upward pressure on commodity prices while the global economy continues to grapple with demand and supply imbalances wrought by the pandemic. Altogether, these factors point to more persistent inflationary pressure.

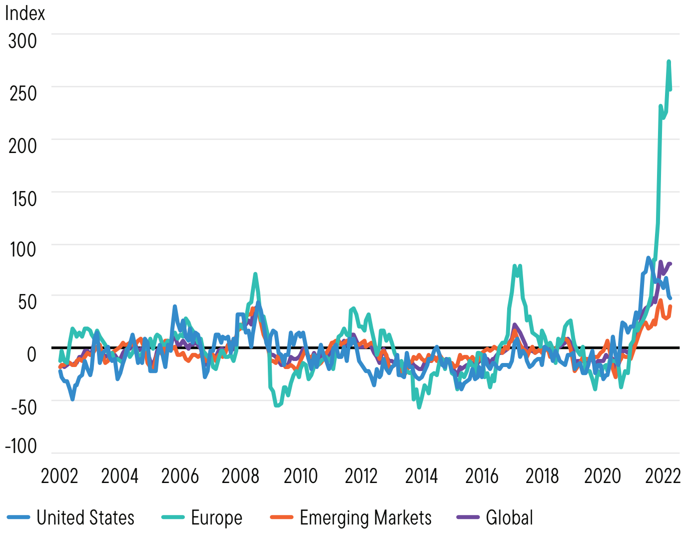
Incoming inflation prints have trounced expectations and continue to exceed central bank targets, resulting in higher interest rates globally (Exhibit 1). Somewhat deviating from history, central banks in emerging markets (EM) had led the way in policy tightening, having turned hawkish well ahead of the US Federal Reserve (Fed).

The US central bank has since caught up with its EM peers, with Fed Chair Jerome Powell and Vice Chair Lael Brainard stressing that the Federal Open Market Committee (FOMC) is focussed on fighting inflation, both invoking former Fed Chair Paul Volcker's name in their public comments for good measure. According to the FOMC, the risk of inflation outweighs concerns about growth.

Citi Inflation Surprise Index

Exhibit 1: Inflation Data Continue to Surprise on the Upside

As of April 15, 2022

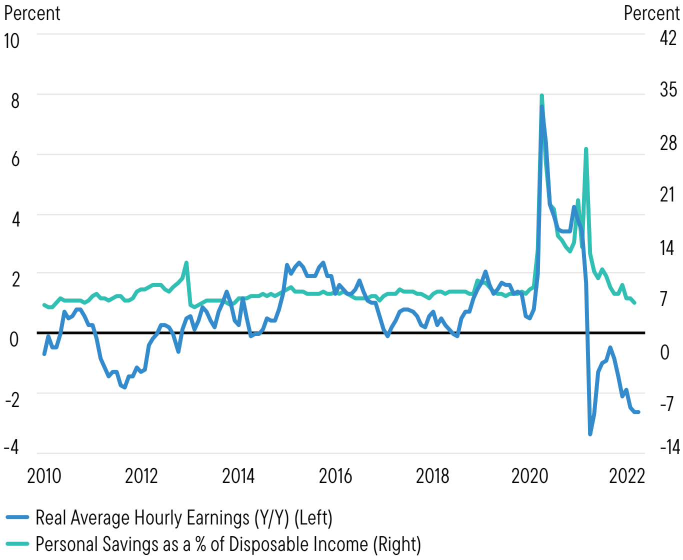


Source: Bloomberg. Indexes are unmanaged and one cannot directly invest in them. They do not include fees, expenses or sales charges. **Past performance is not an indicator or a guarantee of future performance.**

US Real Average Hourly Earnings Year-over-year (Y/Y) Growth

Exhibit 2: Real Average Hourly Earnings Growth Has Declined as High Inflation Eats into Household Income. This May Crimp Consumer Spending

As of May 10, 2022



Source: Bloomberg.

Growth facing multiple headwinds

Yet, monetary policy tightening coincides with stiff headwinds for global growth. For households in most advanced and emerging markets, the higher cost of living comes as real wages—the difference between nominal wages and inflation—declined due to the surge in prices last year. According to the US Bureau of Labor Statistics, real average hourly earnings in the United States fell by 2.6% from April 2021 through April 2022 (Exhibit 2). Falling real wages may eventually crimp consumer spending.

These outlays are likely to slow anyway, as pent-up demand from the reopening of economies fades. Notably, the US personal savings rate, which surged to nearly 20% during the pandemic, has fallen to 6.2% in March of this year, below its pre-COVID-19 level, suggesting that households may soon begin to tighten their purse strings (Exhibit 2). In addition, higher inflation will more rapidly erode the excess savings that were built up during the pandemic, further impacting expected demand.

This is not just a US phenomenon, as households and firms around the world are facing the same pressures on their real incomes and purchasing power. Accordingly, US exports may not provide an offset to slower spending at home.

Additionally, fiscal policy may turn into a headwind for growth as well. Direct payments to households, massive spending on pandemic healthcare provisions and other elements of 2020–2021 stimulus are not recurring this year or the next. According to the Brookings Institution (as of March 2022), US gross domestic product (GDP) growth will be roughly 2% weaker in 2022 and 2023 due to fewer government outlays.

There is no precedent in post-World War II US history where both monetary and fiscal policy have been simultaneously as contractionary as they will be over the next seven quarters. This could be problematic for the economy.

Tightening financial market conditions imply elevated fears around growth and inflation

These growth headwinds may exert a dampening effect on inflation, a feedback loop that could ultimately temper the pace of policy tightening as long as longer-term inflation expectations remain well anchored.

In addition, the market has already priced in a relatively rapid pace of policy normalization as the US central bank front loads policy tightening with a series of potentially larger interest rate hikes (50 basis points [bps]) in upcoming meetings (Exhibit 3 on the next page). The Fed is also set to shrink its US$9 trillion balance sheet at a more rapid pace, draining liquidity out of the system and engineering tighter financial market conditions.

To some degree, financial markets have already reacted to the Fed's hawkish stance, as evidenced by weaker stock prices, higher bond yields, wider credit spreads and elevated volatility in both interest rate and equity markets. The Fed's hawkish communication has pushed up the 10-Year US Treasury yield by more than 130 bps year-to-date (as of 30 April 2022) even as the central bank had only raised policy rates by 25 bps at the time (Exhibit 4 on the next page).

This is a remarkable feat considering the 10-Year US Treasury yield ticked up only 30 bps during the 2004–2006 tightening cycle. By contrast, the fed funds rate increased 425 bps at the time.

Likewise, the yield on the 10-Year benchmark rose just 90 bps during the 2016–2018 tightening cycle, while the fed funds rate rose 225 bps. In other words, financial market conditions have already begun to tighten in reaction to a credibly hawkish Fed and the more the market adjusts, the less the Fed may have to do policy-wise to engineer similar outcomes.

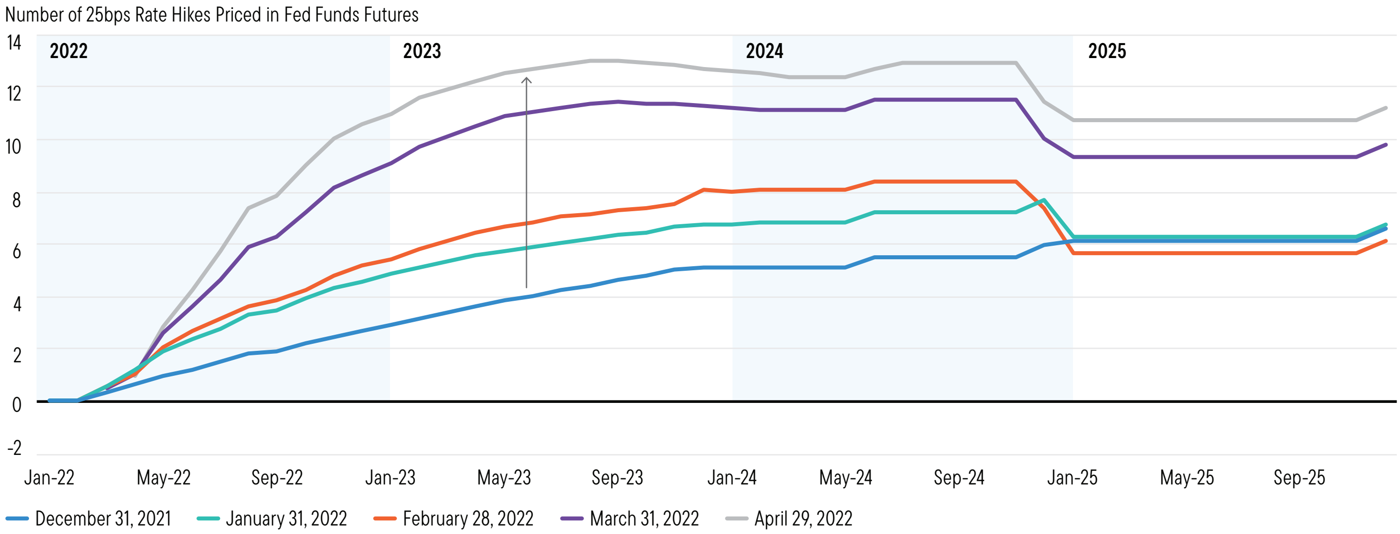
While rising bond yields present opportunities, volatility may remain elevated

Unsurprisingly, the pivot to a hawkish policy tack by major central banks has adversely impacted fixed income markets. Bond prices have declined, and nominal yields have moved

Number of Rate Hikes Implied by Fed Funds Futures Pricing

Exhibit 3: The Market Is Pricing a Cumulative 12 25-Basis-Point Interest Rate Hikes by the Federal Reserve by February 2023, Up from Just Three Hikes at the Start of the Year

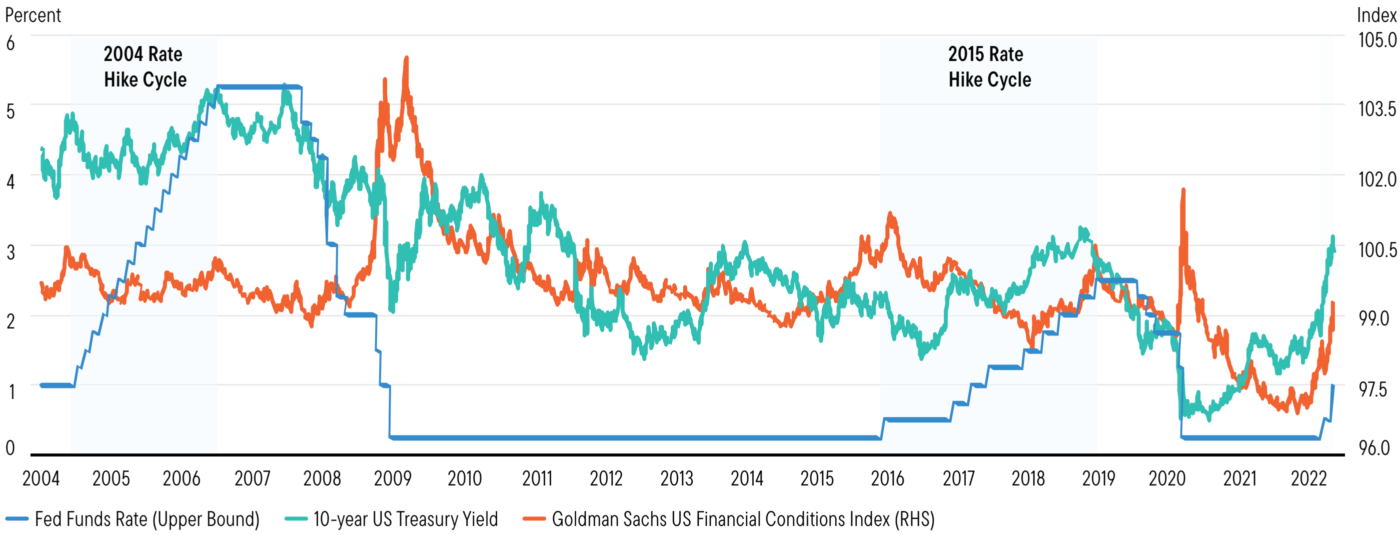
As of April 29, 2022



Source: Bloomberg. The x-axis represents dates in the future, with the number of rate hikes priced into federal funds futures plotted on curves starting from one of the four time periods shown. There is no assurance that any prediction, projection or forecast on the economy, stock market, bond market or the economic trends of the markets will be realized.

Exhibit 4: Financial Conditions Have Tightened, and the 10-year US Treasury Yield Has Increased Substantially Just Two Rate Hikes into the Current Cycle. This Stands in Stark Contrast to the Two Recent Tightening Cycles

As of May 10, 2022



Source: Bloomberg.

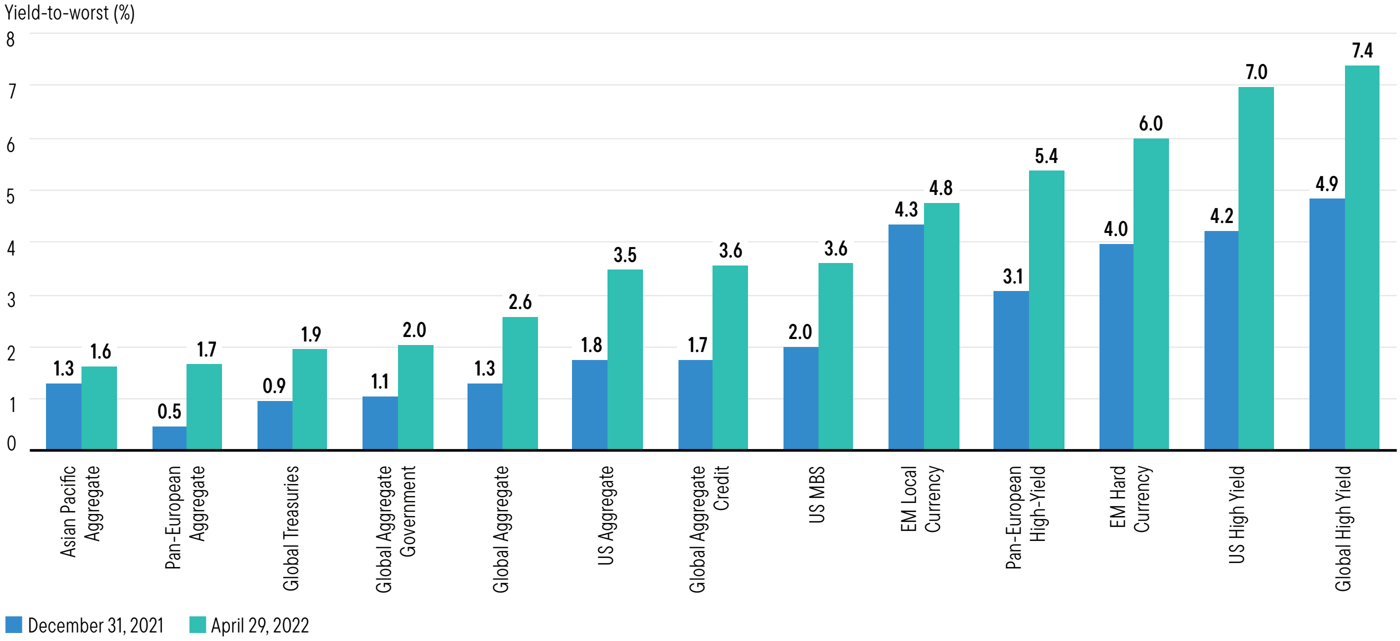
sharply higher (Exhibit 5 on the next page). The stock of negative-yielding debt has declined substantially as central banks end quantitative easing and signal the sustained rise of policy rates. As of end April this year, about 42% of the constituent bonds in the Bloomberg Multiverse Index—a gauge of the global bond market—yielded more than 3% in nominal terms, higher than the 10.8% of bonds at the beginning of the year (Exhibit 6 on the next page).

While existing bondholders are nursing substantial capital losses, the sharp selloff in bonds has opened an interesting opportunity to invest in various fixed income asset classes at meaningfully higher starting yields compared to recent history. Nevertheless, high inflation

Yield-to-worst (YTW) of Global Bond Indexes

Exhibit 5: Yields Have Risen Sharply in 2022

As of April 29, 2022

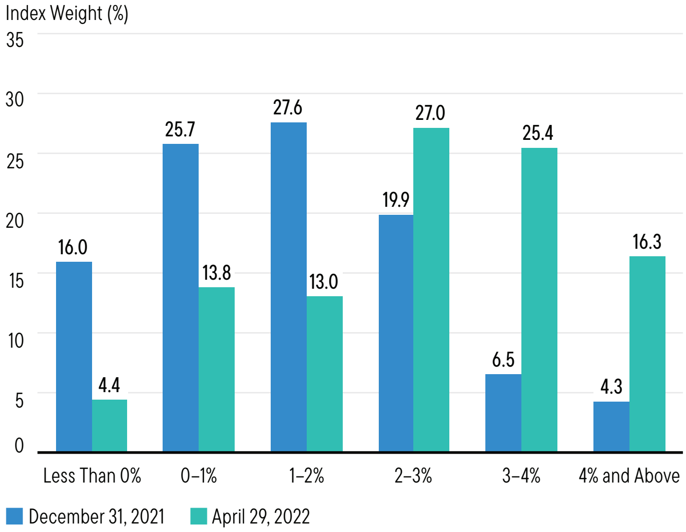


Source: Bloomberg. Pan-European Aggregate: Bloomberg Pan-European Aggregate; Asian Pacific Aggregate: Bloomberg Asian-Pacific Aggregate; Global Treasuries: Bloomberg Global Aggregate Treasuries; Global Aggregate Government: Bloomberg Global Aggregate—Government Index; Global Aggregate: Bloomberg Global Aggregate Index; US Aggregate: Bloomberg US Aggregate Bond Index; Global Aggregate Credit: Bloomberg Global Aggregate Credit; US MBS: Bloomberg US Mortgage-Backed Securities (MBS) Index; Pan-European High Yield: Bloomberg Pan-European High Yield Index; EM Local Currency: Bloomberg EM Local Currency Government Universal Index; EM Hard Currency: Bloomberg EM Hard Currency Aggregate; US High Yield: Bloomberg US Corporate High Yield Bond Index; Global High Yield: Bloomberg Global High Yield Index. Indexes are unmanaged and one cannot directly invest in them. They do not include fees, expenses or sales charges. **Past performance is not an indicator or a guarantee of future performance.**

Bloomberg Multiverse Index, Index Weight by Yield-to-worst

Exhibit 6: Close to 42% of the Constituent Bonds in the Index Yield More than 3% in Nominal Terms, a Meaningful Increase from Just 11% of the Index as at End 2021

As of April 29, 2022

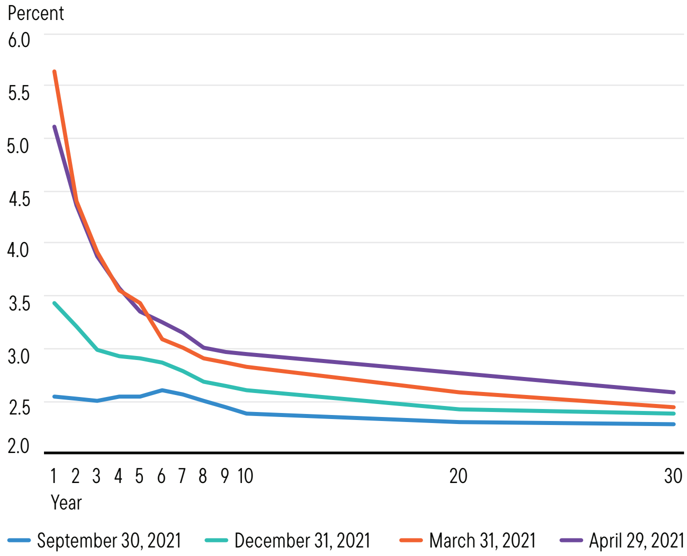


Source: Bloomberg. Indexes are unmanaged and one cannot directly invest in them. They do not include fees, expenses or sales charges. **Past performance is not an indicator or a guarantee of future performance.**

US Inflation Breakevens Across Different Maturities

Exhibit 7: Near-term Inflation Expectations Remain Elevated, While Longer-term Inflation Expectations Have Ticked Slightly above the 2% Trend

As of April 29, 2022



Source: Bloomberg. There is no assurance that any prediction, projection or forecast on the economy, stock market, bond market or the economic trends of the markets will be realized.

invariably translates to lower real yield (nominal yield minus actual inflation), eroding the purchasing power of fixed income streams over time.

As it stands, the International Monetary Fund (IMF) has pencilled in a world consumer price inflation rate of 7.4% in 2022. This implies a large share of global bonds may still be delivering negative real yields. Similarly, long-term real yields on developed market government bonds remain in negative territory even as nominal yields have risen due to higher inflation expectations. Inflation breakevens also suggest that the market expects inflation to remain elevated in the near term but to recede with time to a lower rate that is still somewhat higher than the 2% trend that had prevailed over the last decade (Exhibit 7 on the previous page).

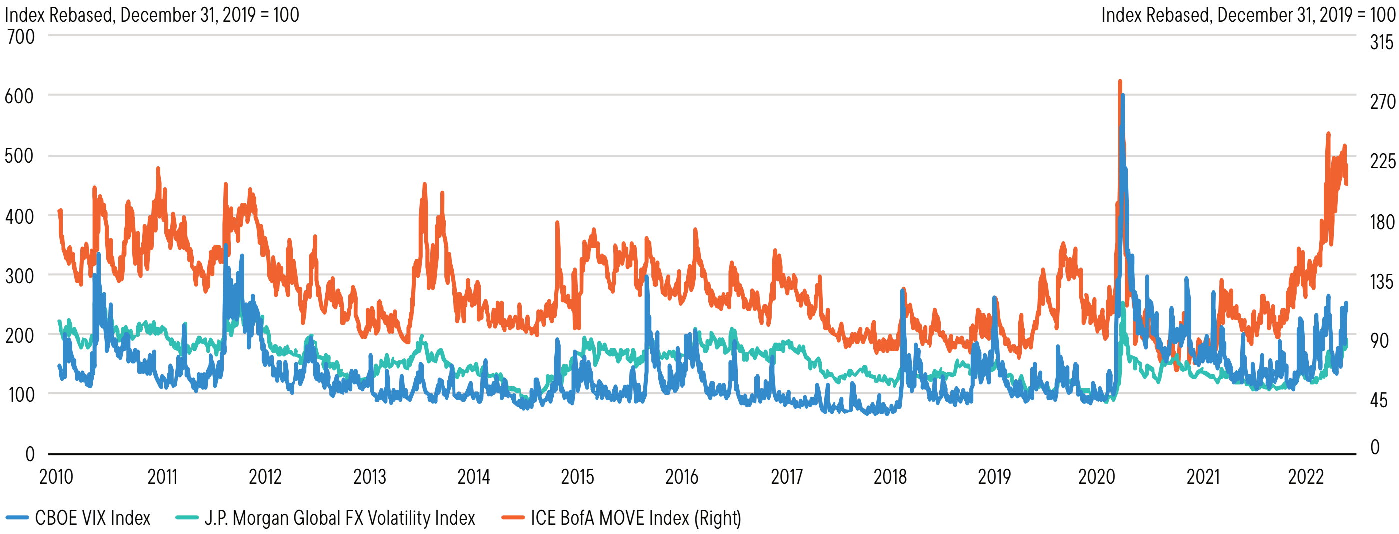
Also, while better value has emerged in certain segments of the fixed income market, valuations could get more attractive as monetary policy and geopolitical dynamics evolve, and as investors demand higher compensation for rising prices. Interest rate volatility remains particularly elevated, with the MOVE Index hovering close to the peaks of the COVID-19 crisis in 2020—a feat unseen both in the equity and foreign exchange markets despite recent risk aversion. Higher volatility in an otherwise historically steady interest rate market may signal heightened uncertainty about the economic and policy risks that lie ahead amidst high inflation, moderating growth, elevated geopolitical risks and a tightening Fed. These fluid developments suggest volatility could remain high for some time.

Elevated currency volatility and hedging costs may also hurt investment returns. High inflation may drag returns in commodity importing countries over the near term and trigger shifts in capital flows that could aggravate market volatility.

Volatility Gauges

Exhibit 8: Policy Jitters Have Triggered More Turbulence in Markets

As of April 29, 2022



Source: Bloomberg. Indexes are unmanaged and one cannot directly invest in them. They do not include fees, expenses or sales charges.

Cast a wider net for income

These challenges underscore the importance of casting a wider net for income generating assets. Income seekers may have to accept reasonable levels of credit and equity risks to enhance yield in their portfolios. Diversification of income sources is particularly important as market volatility remains elevated.

Dividend stocks and hybrids will be key sources of yield

Accepting some equity risk in the form of dividend-paying stocks may be necessary to enhance portfolio yield. Against a more uncertain economic backdrop, investors may continue to lean on high quality dividend plays such as stocks of companies with robust free cash flows and long track records of growing dividends over time. These companies tend to have wider competitive moats and stronger pricing power and might be able to preserve profit margins as cost pressures increase. In addition, companies with cash flows that tend to reset higher in the face of enduring inflation, such as listed infrastructure and real estate, may be useful as both a source of income and an inflation hedge.

Even among growth-style stocks that may not necessarily pay out dividends, hybrid instruments like equity-linked notes can help manufacture income where it may not have previously existed. Such instruments can deliver enhanced yield while also capturing some of the potential capital upside of an underlying stock. Adopting a multi-asset approach by including healthy dividend growers and hybrids in the mix helps widen the opportunity set for income generation and inflation-adjusted yield enhancement.

Floating rate notes and high-yield bonds could provide shelter from rising interest rates

Within the fixed income space, investors may have to embrace a larger opportunity set from a regional and sectoral perspective and take on some degree of credit risk for incremental yield.

With central banks on a tightening path, investors should consider remaining short on duration to mitigate interest rate risks. High-yield bonds and floating rate notes (or leveraged loans) are appealing candidates in this environment given their higher nominal yields, low duration and relatively lower volatility.

A benign default environment, better quality and stronger fundamentals further strengthens the case for these asset classes, although careful credit selection matters. Fed tightening typically leads to an increase in corporate financing costs, which may have a greater impact on the free cashflow of high-yield companies that tend to be more leveraged than their investment-grade peers. Understanding individual company default risks is important in order to maximize returns and minimize risk, especially in the leveraged loans space, where the proportion of covenant-lite loans have increased over the years.

Private market opportunities

Increasingly, investors are also turning to private markets in search of yield. Private real estate—commercial real estate (multi-family, industrial, office, retail, life sciences, and warehousing) in particular—has become progressively more accessible to retail investors as an instrument for portfolio diversification and income generation. It is a compelling asset class insofar as it tends to exhibit lower volatility relative to stocks, higher yields relative to traditional fixed income assets and lower correlation to returns from equities and bonds.

Moreover, commercial real estate has historically acted as a hedge against inflation. Multi-family housing is a good case-in-point, as landlords generally have the ability to adjust rents more quickly (typically on an annual basis) during an economic expansion. For perspective, according to the CBRE, as of the fourth quarter last year, multi-family rents grew by 13.4% in 2021, much faster than headline consumer price inflation of about 7.0% in the same year. In addition, many real estate leases have contractual rent bumps that are linked directly to annual inflation rates, automatically passing higher costs to tenants in the form of higher rents.

High-quality bonds are still relevant for portfolios

In the face of higher economic and policy risks, the quest for yield should not come at the expense of risk management. Higher market volatility is to be expected as countries continue to wrestle with higher inflation, supply chain disruptions, tighter financial market conditions and the ramifications of geopolitical shocks.

We believe it is still prudent to maintain some defensive posture in fixed income and allocate into high-quality bonds or duration plays that can act a bulwark against potential equity market selloffs or deteriorating market conditions, while still capturing some yield. As high-quality fixed income assets tend to either weakly correlate or negatively correlate with risk assets, they are especially useful as a diversification tool in investment portfolios (Exhibit 9).

5-year Total Return Correlation Matrix

Exhibit 9: High-Quality Fixed Income Assets Tend to Either Weakly Correlate or Negatively Correlate with Risk Assets, Underscoring Its Usefulness as a Diversification Tool

As of April 29, 2022

		1	2	3	4	5	6	7	8	9	10	11
1	S&P 500	1.00										
2	Listed Private Equity	0.87	1.00									
3	MSCI EAFE	0.80	0.86	1.00								
4	Hedge Funds	0.08	0.17	0.11	1.00							
5	US High Yield	0.79	0.85	0.73	0.09	1.00						
6	Global High Yield	0.76	0.85	0.79	0.12	0.96	1.00					
7	Leveraged Loans	0.62	0.68	0.52	-0.03	0.86	0.84	1.00				
8	Emerging Market Hard Currency	0.60	0.70	0.68	0.11	0.82	0.91	0.72	1.00			
9	Emerging Market Local Currency	0.54	0.62	0.66	0.09	0.64	0.74	0.50	0.75	1.00		
10	US Aggregate	0.15	0.21	0.15	-0.03	0.42	0.43	0.35	0.62	0.37	1.00	
11	US Treasury	-0.20	-0.17	-0.17	-0.08	0.01	0.02	-0.05	0.28	0.12	0.89	1.00

Source: Bloomberg. Relevant indices include the S&P 500 Total Return Index, MSCI EAFE Net Total Return Index, Credit Suisse Hedge Fund Index, S&P Listed Private Equity Total Return Index, Credit Suisse Leveraged Loan Index, Bloomberg US Corporate High Yield Total Return Index, Bloomberg Global High Yield Total Return Index, Bloomberg Emerging Market Hard Currency Total Return Index, Bloomberg Emerging Market Local Currency Total Return Index, Bloomberg US Aggregate Total Return Index and Bloomberg US Treasury Total Return. Past performance is not an indicator or a guarantee of future performance. Indexes are unmanaged, and one cannot invest directly in an index. They do not reflect any fees, expenses, or sales charges.

Stay active

In our view, diversification of income sources, judicious credit and stock selection and active management should be top of mind as investors expand the search for yield amid choppier waters. We also believe active management will be key to uncover opportunities and unlock value in a wide array of regional markets and asset classes as well as navigate a more volatile market environment amid flaring inflation, economic and policy concerns.

WHAT ARE THE RISKS?

All investments involve risks, including possible loss of principal. The value of investments can go down as well as up, and investors may not get back the full amount invested. Diversification does not guarantee profit nor protect against the risk of loss. Stock prices fluctuate, sometimes rapidly and dramatically, due to factors affecting individual companies, particular industries or sectors, or general market conditions. Bond prices generally move in the opposite direction of interest rates. Thus, as prices of bonds in an investment portfolio adjust to a rise in interest rates, the value of the portfolio may decline. Investments in lower-rated bonds include higher risk of default and loss of principal. Changes in the credit rating of a bond, or in the credit rating or financial strength of a bond's issuer, insurer or guarantor, may affect the bond's value.

Floating-rate loans and debt securities tend to be rated below investment grade. Investing in higher-yielding, lower-rated, floating-rate loans and debt securities involves greater risk of default, which could result in loss of principal—a risk that may be heightened in a slowing economy. Interest earned on floating-rate loans varies with changes in prevailing interest rates. Therefore, while floating-rate loans offer higher interest income when interest rates rise, they will also generate less income when interest rates decline. Changes in the financial strength of a bond issuer or in a bond's credit rating may affect its value.

Special risks are associated with foreign investing, including currency fluctuations, economic instability and political developments. Investments in emerging markets, of which frontier markets are a subset, involve heightened risks related to the same factors, in addition to those associated with these markets' smaller size, lesser liquidity and lack of established legal, political, business and social frameworks to support securities markets. Because these frameworks are typically even less developed in frontier markets, as well as various factors including the increased potential for extreme price volatility, illiquidity, trade barriers and exchange controls, the risks associated with emerging markets are magnified in frontier markets. Investment in the commercial real estate sector, including in multifamily, involves special risks, such as declines in the value of real estate and increased susceptibility to adverse economic or regulatory developments affecting the sector. Real estate securities involve special risks, such as declines in the value of real estate and increased susceptibility to adverse economic or regulatory developments affecting the sector. Investments in equity-linked notes (ELNs) often have risks similar to their underlying securities, which could include management, market, and, as applicable, foreign securities and currency risks. In addition, ELNs are subject to certain debt securities risks, such as interest rate and credit risks, as well as counterparty and liquidity risk.

Investments in alternative investment strategies are complex and speculative investments, entail significant risk and should not be considered a complete investment program. Depending on the product invested in, an investment in alternative investments may provide for only limited liquidity and is suitable only for persons who can afford to lose the entire amount of their investment.

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