Principal Morley

Economic and market review

Principal Asset Allocation Viewpoints

As of September 30, 2023

Q4 2023 key themes

- **Global growth is facing a number of headwinds.**
  The global outlook has been troubled by rising rates, oil prices and the U.S. dollar, resulting in investor risk aversion. The U.S. faces a consumer-led downturn, although corporate balance sheet strength should help ensure it is only mild.

- **Inflation is decelerating, albeit slowly, and will end the year above target.**
  Global inflation continued to recede, but deep economic slowdowns will be required to reach global central bank inflation targets. Higher oil prices, if sustained, also threaten to undermine anchored inflation expectations.

- **Global monetary tightening cycles are nearing the end, but rate cuts are not imminent.**
  As long as economic growth remains above trend, inflation may resurge, forcing continued caution amongst policymakers and delaying policy rate cuts.

- **The global bond sell-off is disruptive but adds much-needed income to fixed income.**
  A nuanced approach is required in fixed income. Higher for longer may extend the bond sell-off, but a modest economic downturn means credit spreads can remain fairly tight. Bonds now have been generating meaningful portfolio income.

After a great first half of the year, U.S. equity markets pulled back during the 3rd quarter

Interest rates were up for the quarter putting pressure on bond returns as well.

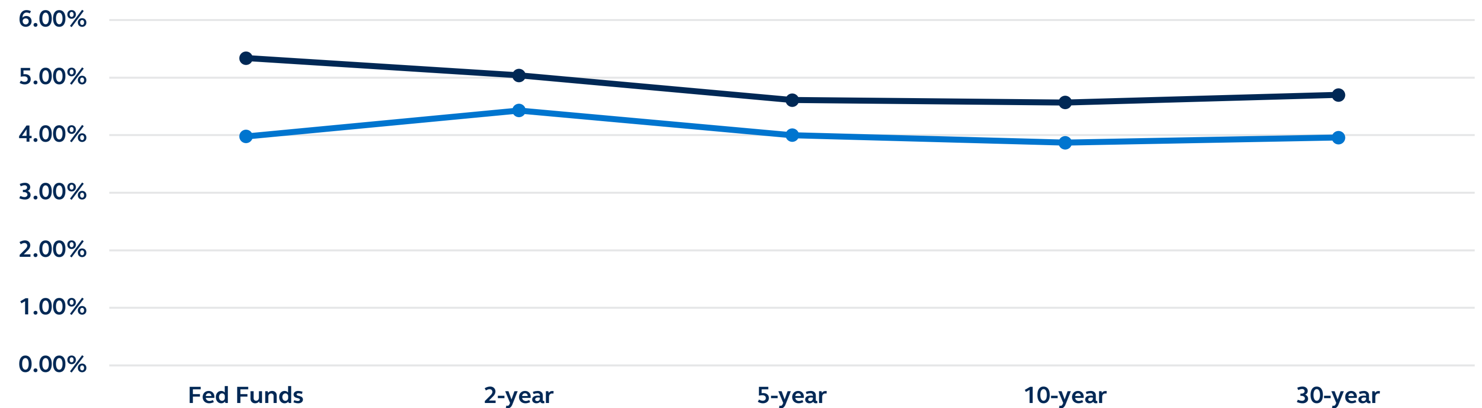
	3-month	YTD	1-year	3-year	5-year	10-year
Fixed Income						
ICE BofA U.S. Treasury Bill 3-month Index	1.31%	3.60%	4.47%	1.70%	1.72%	1.11%
Bloomberg Aggregate Bond Index	-3.23%	-1.21%	0.64%	-5.21%	0.10%	1.13%
Bloomberg U.S. Corp High Yld 2% Issuer Capped Index	0.46%	5.87%	10.28%	1.75%	2.95%	4.24%
Bloomberg Long-Term Govt/Credit Index	-9.37%	-5.40%	-2.93%	-11.90%	-1.21%	1.94%
U.S. Equities						
Russell 1000 Value Index	-3.16%	1.79%	14.44%	11.05%	6.23%	8.45%
S&P 500 Index	-3.27%	13.07%	21.62%	10.15%	9.92%	11.91%
Russell 1000 Growth Index	-3.13%	24.98%	27.72%	7.97%	12.42%	14.48%
Russell Midcap Index	-4.68%	3.91%	13.45%	8.09%	6.38%	8.98%
Russell 2000 Index	-5.13%	2.54%	8.93%	7.16%	2.40%	6.65%
Non-U.S. Equities						
MSCI EAFE NTR Index	-4.11%	7.08%	25.65%	5.75%	3.24%	3.82%
MSCI ACWI ex-USA Index	-3.77%	5.34%	20.39%	3.74%	2.58%	3.35%
MSCI Emerging Markets Index	-2.93%	1.82%	11.70%	-1.73%	0.55%	2.07%
Other						
MSCI U.S. REIT Index	-7.32%	-2.89%	1.87%	4.51%	1.62%	4.65%
S&P GSCI® Index	15.98%	7.24%	10.93%	29.49%	5.57%	-2.53%
U.S. Dollar Index	2.67%	1.55%	-5.35%	2.45%	1.36%	2.27%

As of 09/30/2023.
Source: FactSet Global. Benchmark Review-Ned Davis Research 4Q2022, Jan. 3, 2023. Returns are annualized. **Past performance does not guarantee future results**. Index performance information reflects no deduction for fees, expenses, or taxes. Indices are unmanaged and individuals cannot invest directly in an index. See Important Information for index descriptions.

The history of interest rates

How have interest rates changed in recent years?

	Sept. 30, 2020	Sept. 30, 2021	Sept. 30, 2022	Dec. 31, 2022	Sept. 30, 2023
Fed Funds	0.07	0.04	2.64	3.98	5.34
2-year	0.13	0.28	4.28	4.43	5.04
5-year	0.28	0.96	4.09	4.00	4.61
10-year	0.68	1.49	3.83	3.87	4.57
2- to 10-year spread	0.56	1.21	-0.45	-0.55	-0.47
30-year	1.46	2.04	3.78	3.96	4.70



	Fed Funds	2-year	5-year	10-year	30-year
September 29, 2023	5.34%	5.04%	4.61%	4.57%	4.70%
December 31, 2022	3.98%	4.43%	4.00%	3.87%	3.96%

Source: FactSet. **Past performance does not guarantee future results.**

ASSET CLASS RETURNS AS OF SEPTEMBER 30, 2023

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD
Best	Emerging Markets 18.23%	Small Cap 38.82%	Real Estate 31.78%	Real Estate 4.23%	Small Cap 21.31%	Emerging Markets 37.28%	Cash 1.86%	Large Cap 31.49%	Small Cap 19.96%	Real Estate 46.18%	Commodities 16.09%	Large Cap 13.07%
	Mid Cap 17.88%	Mid Cap 33.50%	Government Treasury 25.07%	Large Cap 1.38%	Mid Cap 20.74%	Intl Stocks 25.03%	Intermediate Bond 0.01%	Mid Cap 26.20%	Large Cap 18.40%	Large Cap 28.71%	Cash 1.50%	Asset Allocation 7.22%
	Real Estate 17.59%	Large Cap 32.39%	Large Cap 13.69%	Asset Allocation 1.28%	High Yield 17.34%	Large Cap 21.83%	Government Treasury -1.84%	Real Estate 25.76%	Emerging Markets 18.31 %	Commodities 27.11%	High Yield -11.11%	Intl Stocks 7.08%
	Intl Stocks 17.32%	Intl Stocks 22.78%	Asset Allocation 10.62%	Intermediate Bond 0.55%	Large Cap 11.96%	Mid Cap 16.24%	Intl Bonds -2.15%	Small Cap 25.53%	Government Treasury 17.70%	Mid Cap 24.76%	Intermediate Bond -13.01%	High Yield 5.90%
	Small Cap 16.35%	Asset Allocation 17.56%	Mid Cap 9.77%	Cash 0.03%	Commodities 11.77%	Small Cap 14.65%	High Yield -2.26%	Asset Allocation 22.18%	Asset Allocation 14.73%	Asset Allocation 15.86%	Mid Cap -13.06%	Mid Cap 4.27%
	Large Cap 16.00%	High Yield 7.38%	Intermediate Bond 5.97%	Intl Stocks -0.81%	Emerging Markets 11.19%	Asset Allocation 14.21%	Asset Allocation -2.35%	Intl Stocks 22.01%	Mid Cap 13.66%	Small Cap 14.82%	Intl Stocks -14.45%	Cash 3.80%
	High Yield 15.44%	Real Estate 1.86%	Small Cap 4.89%	Government Treasury -1.21%	Asset Allocation 8.31%	Intl Bonds 10.51%	Large Cap -4.38%	Emerging Markets 18.44 %	Intl Bonds 10.11%	Intl Stocks 11.26%	Asset Allocation -15.79%	Small Cap 2.54%
	Asset Allocation 11.31%	Cash 0.06%	High Yield 2.44%	Mid Cap -2.18%	Real Estate 7.24%	Government Treasury 8.53%	Real Estate -4.84%	Government Treasury 14.83%	Intl Stocks 7.82%	High Yield 5.29%	Large Cap -18.11%	Emerging Markets 1.82%
	Intermediate Bond 4.21%	Intermediate Bond -2.02%	Cash 0.02%	Small Cap -4.41%	Intermediate Bond 2.65%	High Yield 7.48%	Small Cap -11.01%	High Yield 14.40%	Intermediate Bond 7.51%	Cash 0.05%	Intl Bonds -18.70%	Real Estate -0.17%
	Intl Bonds 4.09%	Emerging Markets -2.60%	Emerging Markets -2.19%	High Yield -4.55%	Intl Bonds 1.49%	Real Estate 4.18%	Mid Cap -11.08%	Intermediate Bond 8.72%	High Yield 6.20%	Intermediate Bond -1.54%	Emerging Markets -20.09%	Intermediate Bond -1.21%
	Government Treasury 3.56%	Intl Bonds -3.08%	Intl Bonds -3.08%	Intl Bonds -6.02%	Government Treasury 1.33%	Intermediate Bond 3.54%	Commodities -11.25%	Commodities 7.69%	Cash 0.58%	Emerging Markets -2.54%	Small Cap -20.44%	Intl Bonds -3.20%
	Cash 0.09%	Commodities -9.52%	Intl Stocks -4.90%	Emerging Markets -14.92%	Intl Stocks 1.00%	Commodities 1.70%	Intl Stocks -13.79%	Intl Bonds 5.09%	Commodities -3.12%	Government Treasury -4.65%	Real Estate -26.81%	Commodities -3.44%
Worst	Commodities -1.06%	Government Treasury -12.66%	Commodities -17.01%	Commodities -24.66%	Cash 0.27%	Cash 0.84%	Emerging Markets -14.58%	Cash 2.25%	Real Estate -7.90%	Intl Bonds -7.05%	Government Treasury -29.26%	Government Treasury -8.55%

The returns reflect performance of certain indexes as defined below. This information is general in nature and is not intended to be reflective of any specific plan.

Cash- FTSE 3-month T-bill ,Government Treasury-BBgBarc Long Treasury, Commodities-Bloomberg Commodity Idx, Intermediate Bond-BBgBarc US Agg Bond Idx, High Yield Bond-ICE BofAML High Yield Idx, Intl Bonds-Bloomberg Global Aggregate ex USD, Asset Allocation-portfolio assumes the following weights: 60% S&P 500 and 40% BBgBarc US Agg, Large Cap-S&P 500, Mid Cap-S&P Midcap 400, Small Cap-Russell 2000, Intl Stocks-MSCI EAFE (net), Emerging Markets-MSCI EM (net), Real Estate-Wilshire U.S. REIT.

Past performance does not guarantee future results.

Global economy: Starting to feel the heat

The post-pandemic recovery is starting to ebb as global storm clouds gather. China's economic story has disappointed as the property sector weighs heavily on consumption. Proactive and meaningful policy support is required if the economy is to hit the 5% growth target. Europe is heading for stagnation, weakened by China's economic struggles and ECB monetary tightening. And while U.S. growth has exceeded expectations, with consumption headwinds building, growth is poised to decelerate.

The convergence of rising interest rates, soaring oil prices, and a strengthening U.S. dollar has created a concerning scenario. Bond vigilantes have reacted to the prolonged period of higher interest rates, while supply cuts in the oil market have put upward pressure on prices. Additionally, the Fed's more hawkish stance compared to other central banks has bolstered the U.S. dollar's value. Collectively, these factors pose a risk to global economic growth, increase the likelihood of inflation, and threaten financial stress.

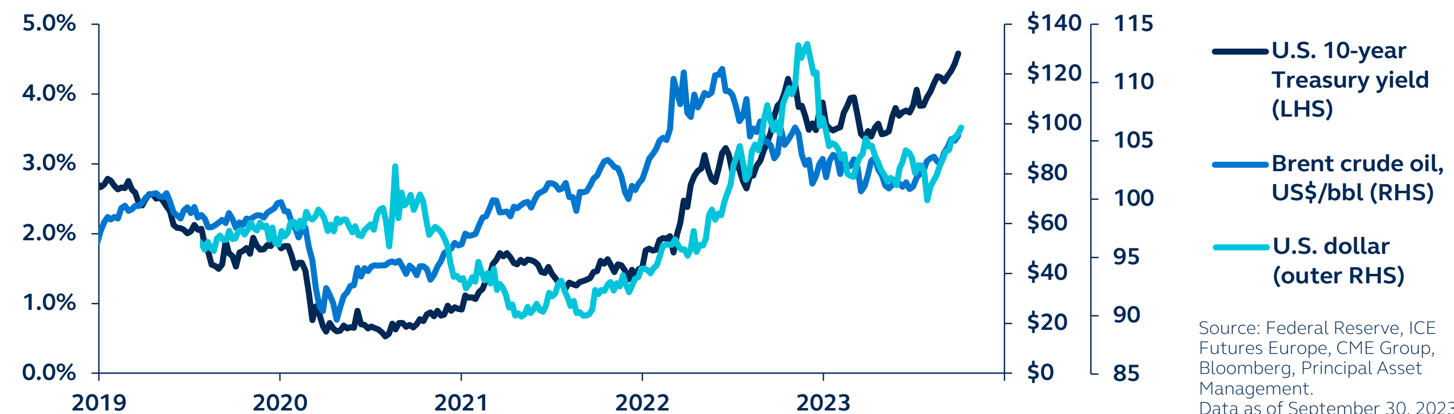
Although there are a few positive aspects in the global economy, such as Japan's recovery from a prolonged period of lackluster growth and India's impressive growth trajectory, the global economic outlook remains weak.

The global outlook looks troubled as rising rates, oil prices and the U.S. dollar threaten to exacerbate economic slowdowns.

Developed market and China Purchasing Managers' Index (PMI)
May 2008–August 2023

Source: Bloomberg, Principal Asset Management.
Data as of August 31, 2023.

U.S. 10-year Treasury yield, Brent crude oil price and U.S. dollar index
2019–present



Source: Federal Reserve, ICE Futures Europe, CME Group, Bloomberg, Principal Asset Management.
Data as of September 30, 2023.

U.S. economy: After Beyoncé and Taylor Swift

The U.S. economy experienced significant strength in the third quarter of 2023, largely attributed to exceptional consumer spending on special entertainment events like the Beyoncé and Taylor Swift concert tours. However, with challenges beginning to mount for consumers, it is likely that 3Q 2023 marked the pinnacle of this growth.

- The significant excess savings cushion, which both fueled consumer spending and helped prevent a build-up in household indebtedness, has been run down. Assuming the recent pace of drawdown persists, excess household savings will likely be exhausted within the next few months.
- Various pandemic-related fiscal support measures, such as the resumption of student loan repayments, which according to estimates, will cost U.S. consumers around $18 billion per month, are ending.

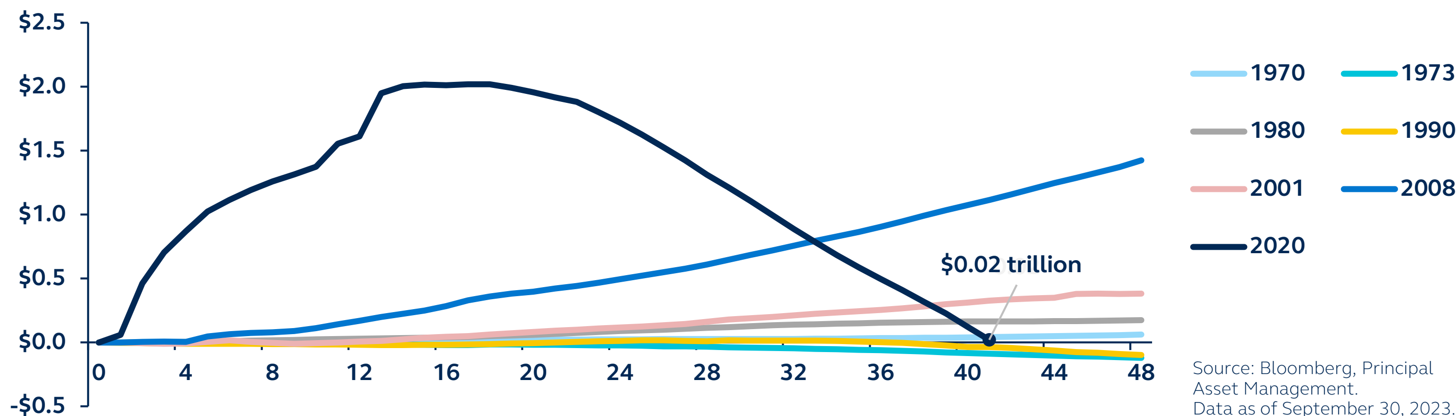
While fiscal support and excess savings have shielded consumers from tighter monetary policy, by early 2024, many households will likely be exposed to the full burden of higher rates.

Labor market softness is also likely to weigh on households. Cracks are starting to show, with monthly payrolls numbers steadily trending downwards. A negative jobs growth number could be in the pipeline within the next few months.

Fading excess savings and expiring fiscal support imply that consumers will soon be exposed to the full burden of higher policy rates.

Aggregate excess savings following recession

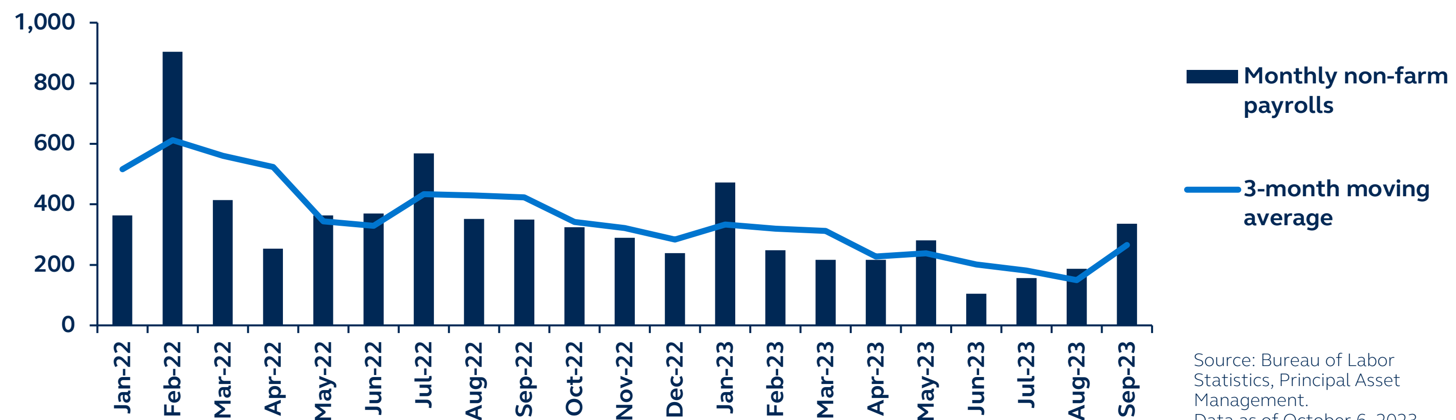
Trillions, months since start of recession



Source: Bloomberg, Principal Asset Management. Data as of September 30, 2023.

U.S. non-farm payrolls

Thousands, monthly, January 2022–present



Source: Bureau of Labor Statistics, Principal Asset Management. Data as of October 6, 2023.

Powell pillow: Insulating the economy from his rate hikes

Fed policy acts with "long and variable lags." Today, these lags appear to be extended even longer than usual.

A record corporate debt binge during 2020 and 2021, in response to the Fed’s emergency corporate debt buying facilities, allowed companies to raise significant liquidity, shore up their balance sheets and lock in record low interest rates. As a result, corporate interest burdens have fallen to the lowest levels seen in over 50 years, even as policy rates have risen to their highest level since 2001.

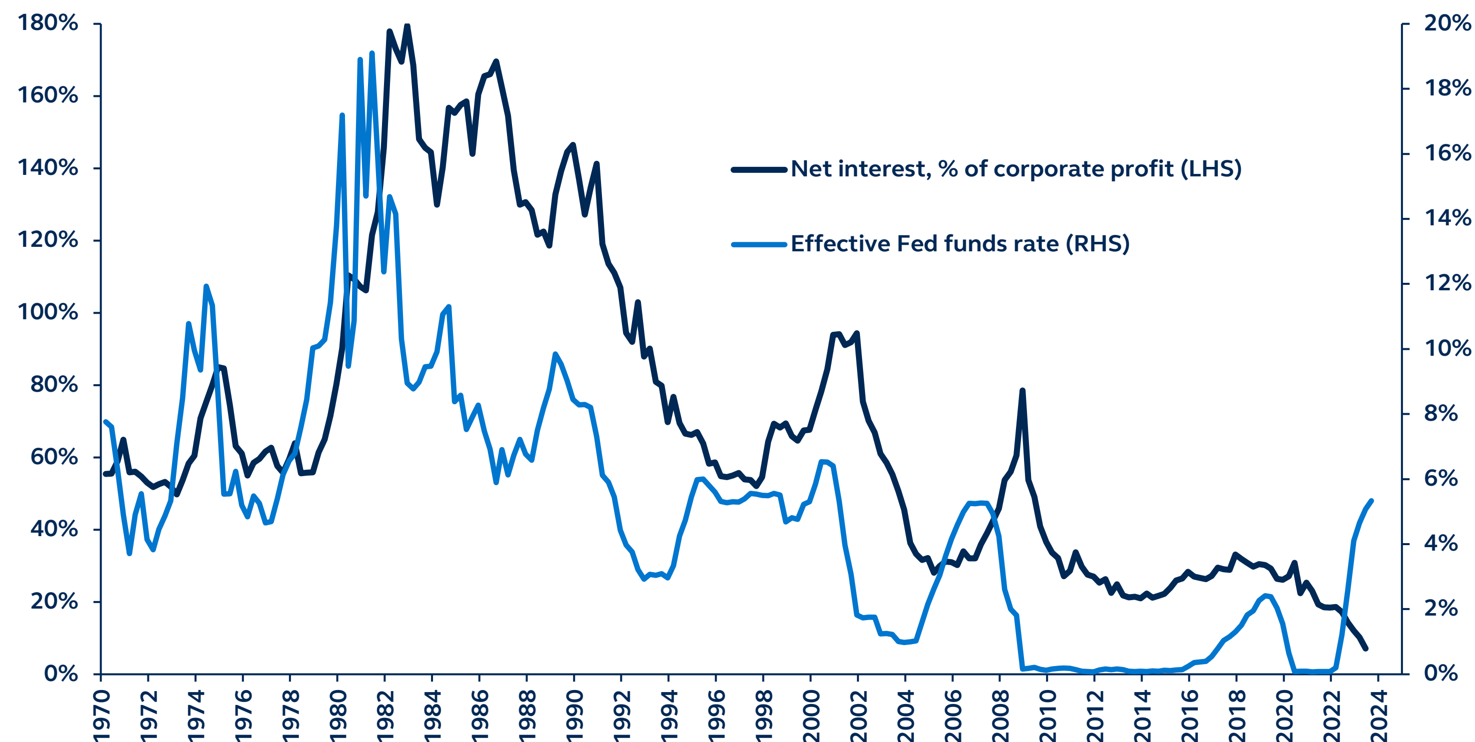
If many firms had to refinance their debt next year, the increased cost of servicing that debt could result in severe economic stress. However, the corporate debt maturity wall will remain relatively unchallenging through 2024, so companies will likely continue to be cushioned from higher interest rates.

While consumer spending is expected to weaken soon, the impact on economic activity will be somewhat offset by strong corporate spending. As a result, the forecasted economic downturn is expected to be a short and shallow, “soft” recession, extending two quarters, resulting in just a 0.4% drop in economic output, and limiting the rise in the unemployment rate to around 4%.

Companies will likely remain cushioned from higher rates next year, offsetting consumer weakness, and helping result in only a short and shallow U.S. recession.

Corporate interest payments versus Federal funds rate

1970–present



Source: Federal Reserve, Bureau of Economic Analysis, Bloomberg, Principal Asset Management. Data as of September 30, 2023.

Inflation: In need of a little growth slowdown

Global economies have made significant headway in reducing inflation. Much of the improvement has been focused on core commodity inflation, where supply chain normalization has helped moderate price pressures.

Yet, particularly in the U.S, economic resiliency has fostered continued stickiness in the core services segment. Without a meaningful economic slowdown, which would serve to rebalance tight labor markets and reduce core services price pressures, inflation is likely to remain above central bank targets. A short, shallow downturn implies that U.S. inflation is set to settle at around 2.5%—a nagging headache for policymakers.

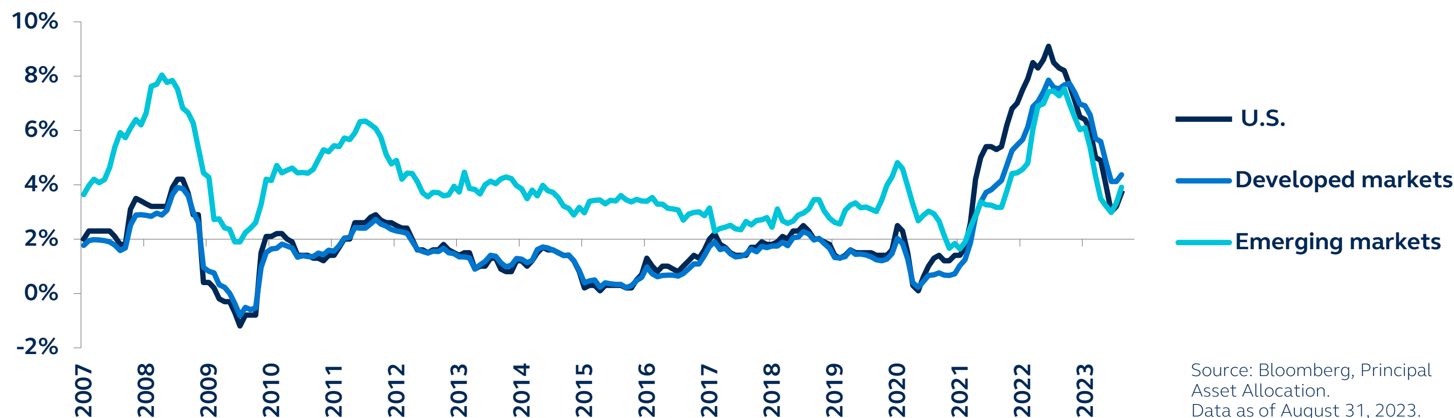
Upside risks to inflation are also emerging. Shipping costs are showing some volatility and slightly threaten the downward trend in core commodities prices. In addition, the recent resurgence in oil prices has already driven up headline inflation.

Central banks will likely look through these developments in the near-term. Yet it is worth noting that, if sustained, higher energy prices can work their way into core inflation and inflation expectations over time. As such, central banks will need to remain alert to inflation risks.

DM central banks have made encouraging disinflation progress. Yet, the final shift lower towards central bank targets would require a meaningful economic slowdown.

Principal Asset Allocation GDP-weighted inflation

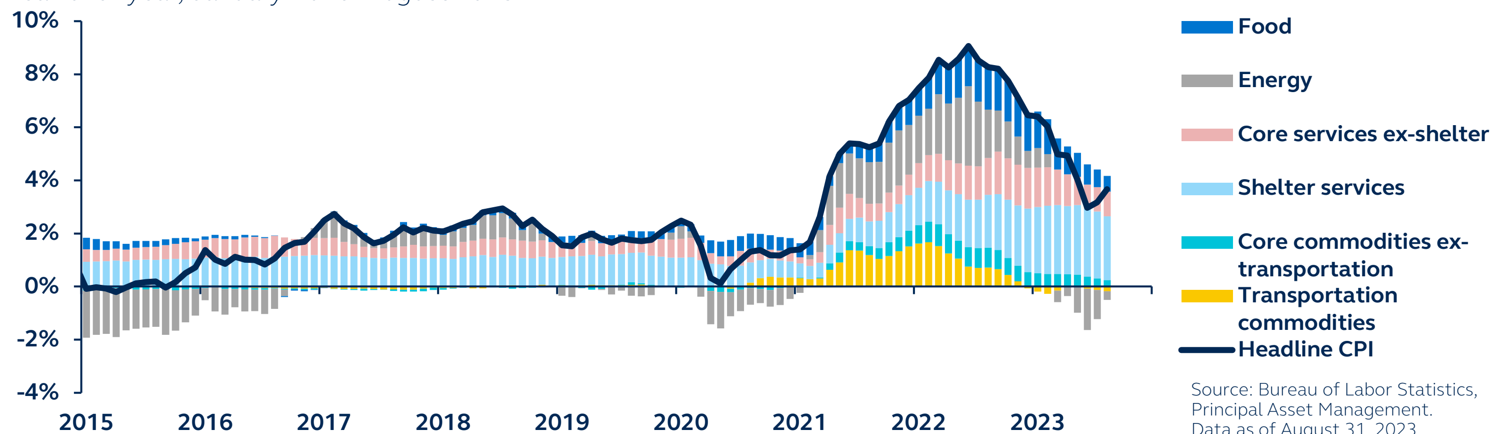
January 2007–August 2023



Source: Bloomberg, Principal Asset Allocation. Data as of August 31, 2023.

Contribution to headline U.S. inflation

Year-over-year, January 2015–August 2023



Source: Bureau of Labor Statistics, Principal Asset Management. Data as of August 31, 2023.

Central banks: Higher for longer

Central banks are nearing the end of one of the most aggressive global monetary tightening cycles in history.

Yet, while a peak in Fed rates will close the chapter on a key discomfort that has plagued markets and investors since late 2022, it does not necessarily open the door to imminent rate cuts. As long as economic growth remains above trend, there will be a risk that inflation picks up again, forcing continued caution amongst policymakers.

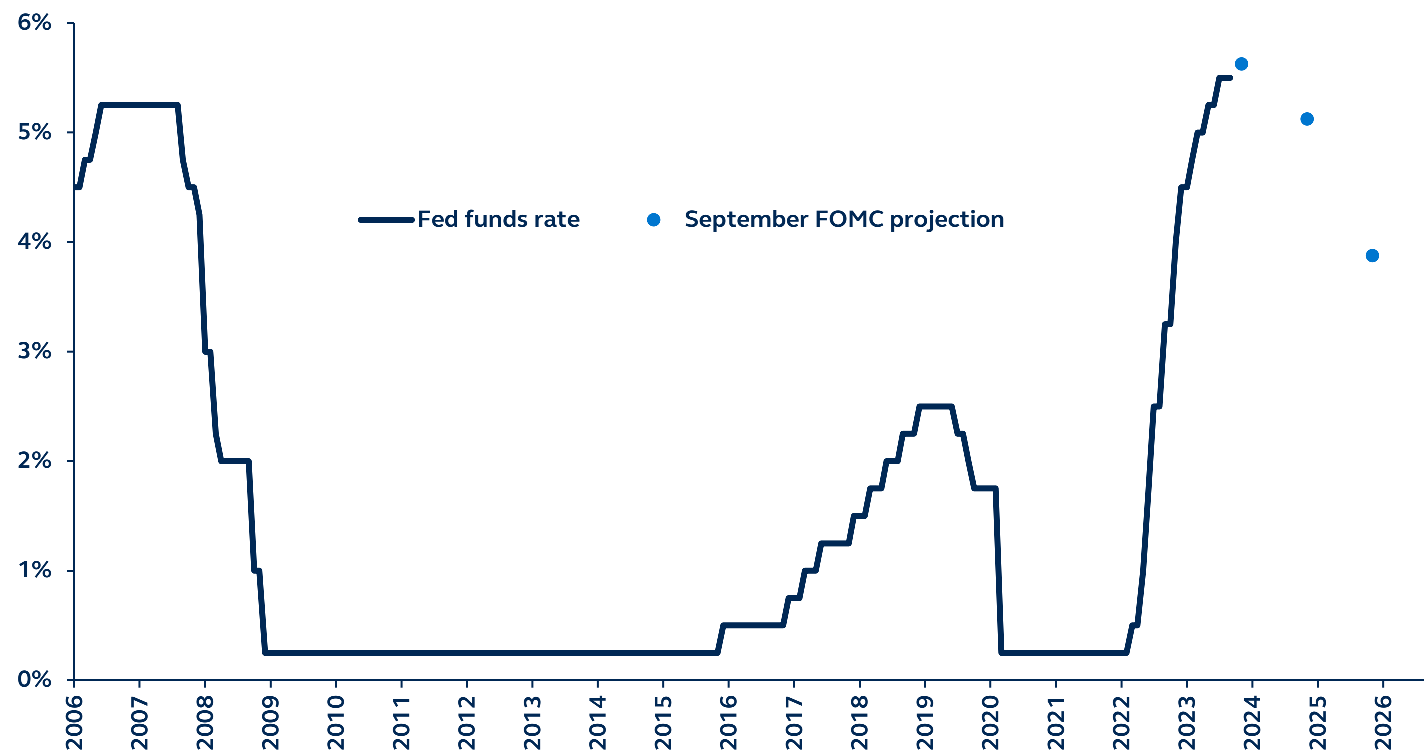
Inflation doesn't necessarily need to fall all the way to 2% before the Fed loosens policy, but they will need to be confident that inflation is heading downward. Gradual rate cuts will begin only once the labor market shows clear signs of weakness, likely not before the end of 2Q 2024. Risks are, however, tilted to the upside. If economic growth continues to ignore tighter monetary conditions and remains strong, renewed inflation risks would trigger additional rate hikes—and an even higher for even longer narrative.

While most other developed market central banks are also nearing the end of their tightening cycles, the Bank of Japan is only gradually drifting towards a tighter policy stance, and across emerging markets, decelerating inflation has already permitted some central banks to start cutting rates.

Fed policy rates have likely peaked, but rate cuts will likely not come until mid-2024 once the labor market shows evident signs of weakness.

Federal Reserve policy rates path

Fed funds rate and September FOMC projection



Source: Federal Reserve, Bureau of Economic Analysis, Bloomberg, Principal Asset Management. Data as of September 30, 2023.

Financial conditions: Disorder and directionless markets

Global financial conditions tightened further in 3Q as the U.S. dollar continued to strengthen and investors finally took heed of developed market central banks' hawkish messages. Global bonds sold off sharply, taking U.S. Treasury yields to their highest levels since the Great Financial Crisis. At the same time, equity markets fell as investors grew concerned about a prolonged high interest rate environment. Conditions would have tightened even further had it not been for continued resilience in credit markets.

By contrast, financial conditions in China and the broader emerging markets remained relatively loose, in line with the general easing of monetary policy in those regions.

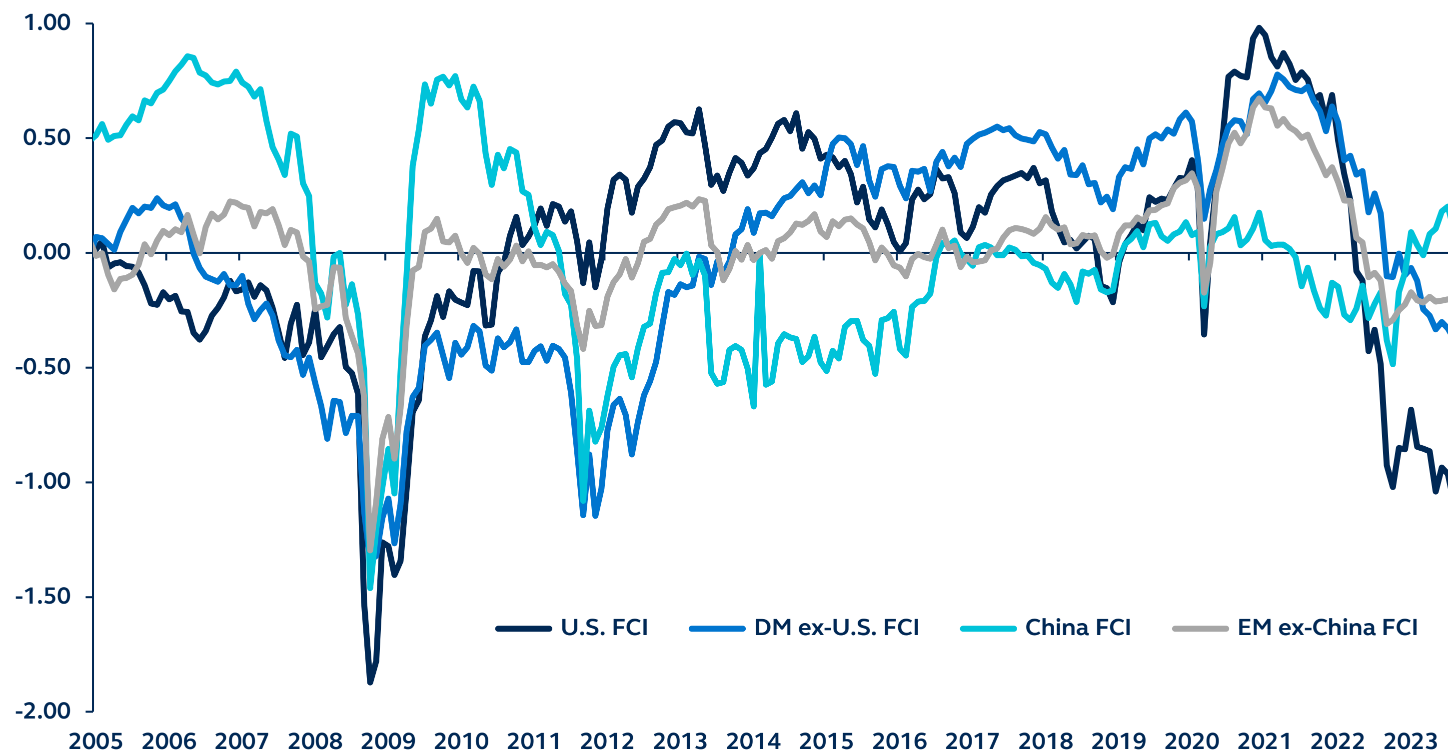
Financial conditions will likely tighten even further if bond yields creep higher in 4Q. In the less likely scenario where bond yields continue to spike, at some stage, tightening financial conditions would threaten financial stress.

Until bond yields peak, potentially only once it becomes apparent that the Fed's tightening cycle has ended, risk assets will likely be subject to continued investor caution and elevated volatility. A temporary period of disorderly, directionless markets is likely, and diversification will be key.

If financial conditions continue to tighten, they will likely extend the current period of disorderly markets.

Developed market and emerging market financial conditions

Principal Asset Allocation Financial Conditions Index (FCI), Z-score, 2005–present



Source: Bloomberg, Principal Asset Allocation. Data as of September 30, 2023.

Fixed income: Finally, some meat to eat

While 2023 has been a better year for bonds after last year's bear market, the higher-for-longer narrative, which led to sharply rising interest rates during 3Q, has acted as a significant headwind.

U.S. Treasurys have delivered -1.5% returns this year, down from a peak return of 4.2% in early April. Corporate bond returns have also receded in recent months, but they have outperformed U.S. Treasurys, as continued economic resilience has driven a further tightening in spreads. High yield bonds have even hung onto most of their gains so far this year.

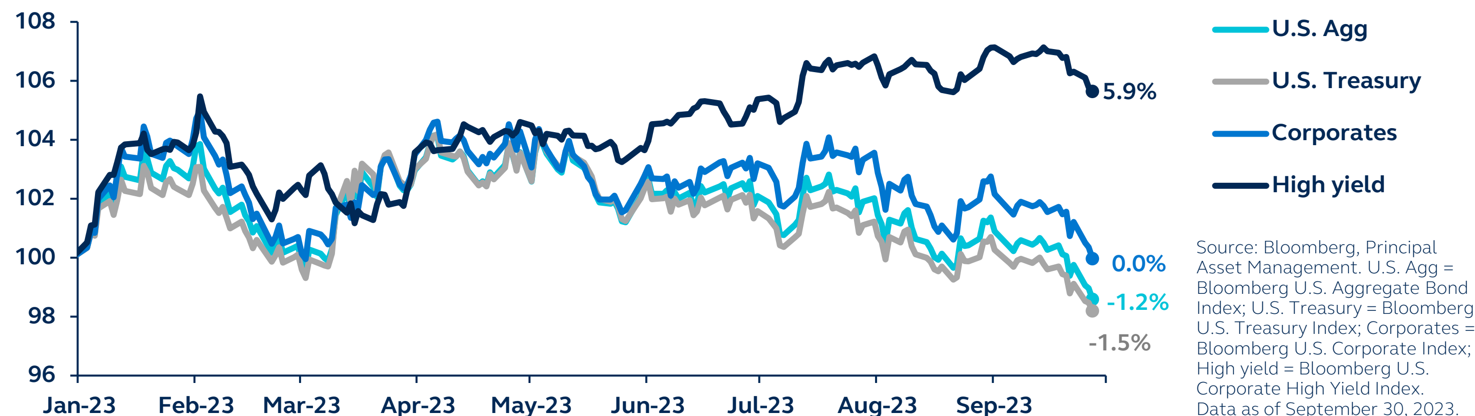
The outlook for a U.S. economic slowdown in 2024 suggests that, eventually, U.S. Treasurys should deliver strong positive returns, while rising defaults may lead to stress in the lower-quality segments of the credit market. However, as clear signs of economic weakness may not be evident until early 2024, government bond yields may drift slightly higher in the near term, and credit is likely to continue outperforming.

The bigger picture is that bonds can now generate more portfolio income than at any other time over the past 15 years. With investors today earning a higher yield on sovereign and high-grade corporate bonds than on equities, fixed income can be finally more than just a diversification tool.

Current economic resilience has produced attractive yields and may offer valuable opportunities in bonds. Credit should continue to outperform until clear signs of economic weakness become evident.

Fixed income asset class performance

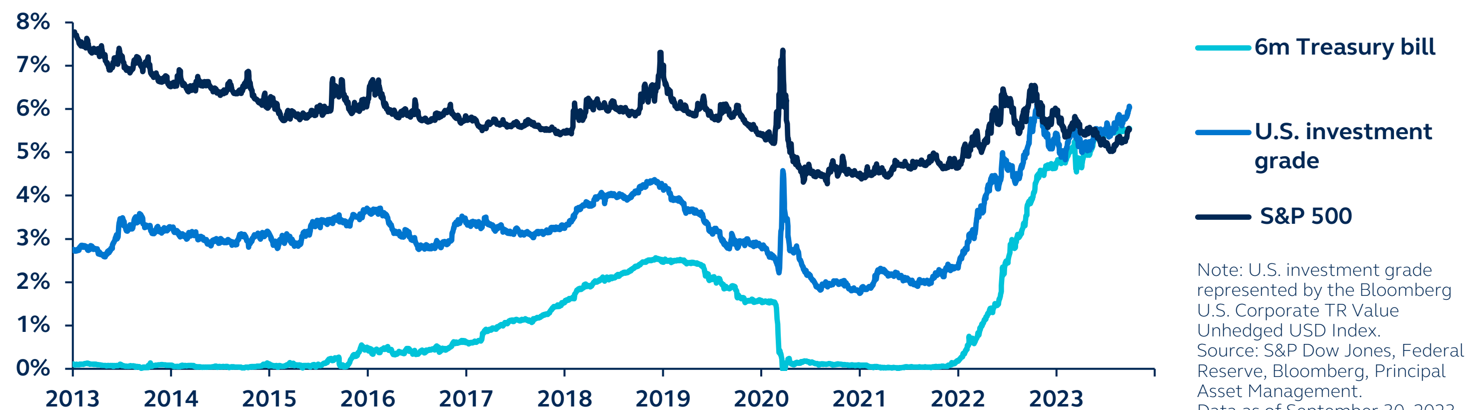
Total return, rebased to 100 at January 1, 2023



Source: Bloomberg, Principal Asset Management. U.S. Agg = Bloomberg U.S. Aggregate Bond Index; U.S. Treasury = Bloomberg U.S. Treasury Index; Corporates = Bloomberg U.S. Corporate Index; High yield = Bloomberg U.S. Corporate High Yield Index. Data as of September 30, 2023.

Yield comparison: S&P 500, investment grade bonds, and 6-month Treasury bills

S&P 500 12m forward earnings yield, investment grade bond yield-to-worst, and 6-month Treasury bills yield



Note: U.S. investment grade represented by the Bloomberg U.S. Corporate TR Value Unhedged USD Index. Source: S&P Dow Jones, Federal Reserve, Bloomberg, Principal Asset Management. Data as of September 30, 2023.

U.S. Treasurys: An uphill struggle

The relentless higher for longer-driven bond sell-off has reached a new milestone.10-year U.S. Treasury yields hit 4.57% at the end of Q3, the highest level since 2007, up 130 basis points since the regional bank crisis earlier this year.

The move higher in yields is quite extreme. However, while bonds do look better priced, they are not yet convincingly cheap, given the validity of the higher-for-longer narrative. There are also strong technical aspects to the sell-off which are yet to be exhausted:

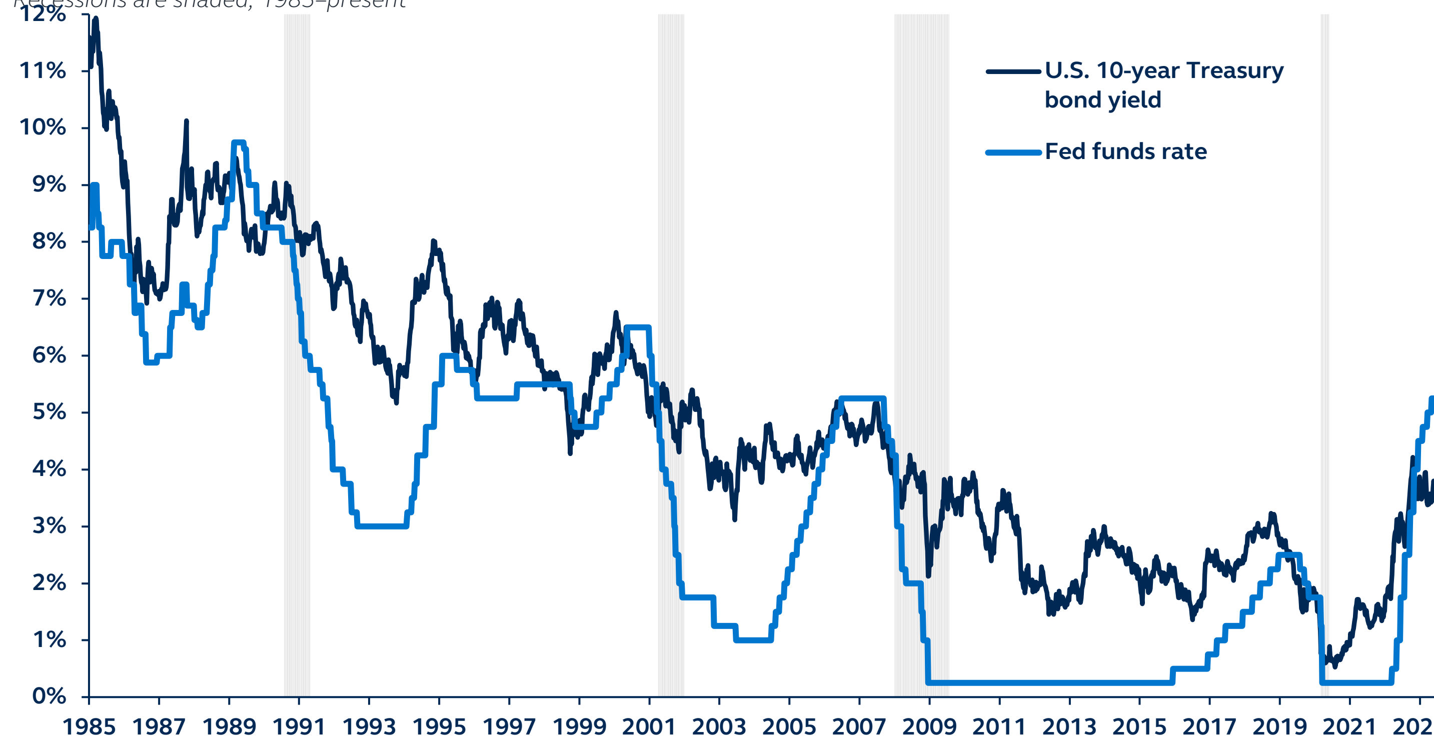
- The U.S. Treasury's higher government borrowing estimates have led to a substantial increase in Treasury issuance.
- The Federal Reserve is reducing its balance sheet
- Forthcoming shifts in the Bank of Japan's yield curve control policies also pose additional upside risk to Treasury yields.

Macro volatility is rising, and Treasury yields may rise further in the short term. Over the medium-term horizon, however, against a backdrop of slowing growth, Treasury yields should revert lower, albeit likely to settle at a higher level than has been custom for the past 15 years. In the meantime, and until that slowdown is realized, investors should generally maintain a neutral exposure, locking in the sizeable current income opportunities but avoiding potential capital losses.

Despite the sharp move higher in yields, rising macro volatility and technical factors imply that near-term duration risks remain. A neutral Treasury positioning is typically warranted.

Fed funds rate and 10-year Treasury yield

Recessions are shaded, 1985–present



Source: Federal Reserve, Bloomberg, Principal Asset Management. Data as of September 30, 2023.

High-quality credit remains favorable ahead of slowdown

Investment grade credit performed solidly in 3Q as economic resiliency, and its read-through to the Fed policy path, drove up yields but compressed spreads. At these levels, spreads cannot be considered cheap. However, until economic data begins to visibly slow in early 2024, default risk should remain low and risk appetite robust, supporting current spread levels.

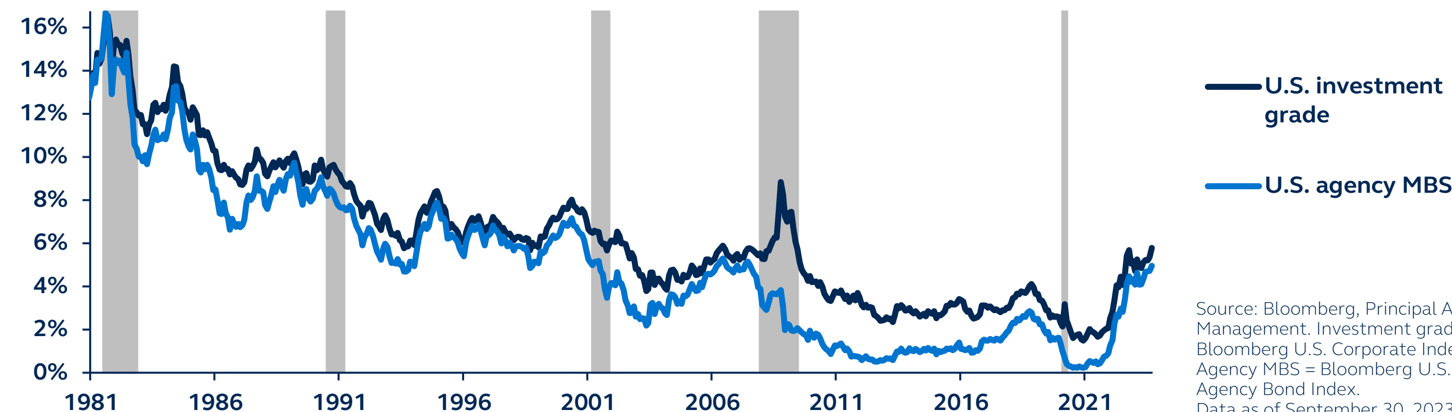
There is also a strong income argument for investment grade credit. After the recent bond sell-off, investment grade yields have risen to their highest level since the Great Financial Crisis. Similarly, agency MBS yields have increased and also offer attractive income. In addition, agency MBS credit holds investor appeal given that prepayment risks should be muted given the higher-for-longer interest rate backdrop.

Across the credit spectrum, high-quality bonds underperformed low-quality bonds during 3Q. However, such underperformance is unlikely to be sustained for a prolonged period. While credit markets appear to be inattentive to the risks of an economic downturn, historically, high-quality credits outperform during even milder economic downturns, with relative total returns over shorter periods favoring U.S. investment grade over high yield issues.

Higher-quality fixed income assets should outperform in an economic downturn, benefitting from tighter spreads and greater stability.

U.S. investment grade and agency MBS yields

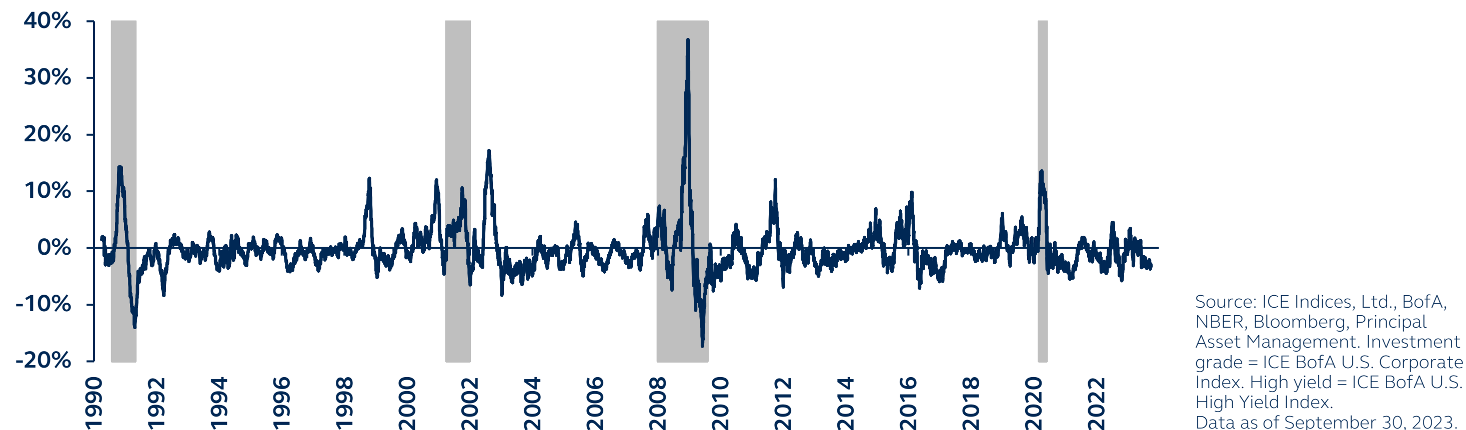
Yield-to-worst, recessions are shaded, 1981–present



Source: Bloomberg, Principal Asset Management. Investment grade = Bloomberg U.S. Corporate Index. Agency MBS = Bloomberg U.S. Agency Bond Index.
Data as of September 30, 2023.

U.S. investment grade vs. high yield performance

3-month relative total return performance, recessions are shaded, 1990–present



Source: ICE Indices, Ltd., BofA, NBER, Bloomberg, Principal Asset Management. Investment grade = ICE BofA U.S. Corporate Index. High yield = ICE BofA U.S. High Yield Index.
Data as of September 30, 2023.

INDEX DESCRIPTIONS

Alerian MLP Index is the leading gauge of energy infrastructure Master Limited Partnerships (MLPs). The capped, float-adjusted, capitalization-weighted index, whose constituents earn the majority of their cash flow from midstream activities involving energy commodities, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis (AMZX).

Bloomberg Commodity Total Return index is composed of futures contracts and reflects the returns on a fully collateralized investment in the BCOM. This combines the returns of the BCOM with the returns on cash collateral invested in 13 week (3 Month) U.S. Treasury Bills

Bloomberg Global Aggregate Bond Index comprises global investment grade debt including treasuries, government-related, corporate, and securitized fixed-rate bonds from developed and emerging market issuers. There are four regional aggregate benchmarks that largely comprise the Global Aggregate Index: the US Aggregate, the Pan-European Aggregate, the Asian-Pacific Aggregate, and the Canadian Aggregate Indices. The Index also includes Eurodollar, Euro-Yen, and 144A Index-eligible securities and debt from other local currency markets not tracked by regional aggregate benchmarks

Bloomberg U.S. Agency Bond Index is composed of agency securities that are publicly issued by U.S. government agencies, and corporate and non-U.S. debt guaranteed by the U.S. government.

Bloomberg U.S. Aggregate Bond Index is the most widely followed broad market U.S. bond index. It measures the investment grade, US dollar-denominated, fixed-rate taxable bond market.

Bloomberg U.S. High-Yield Corporate Bond Index is a rules-based, market-value-weighted index engineered to measure publicly issued non-investment grade USD fixed-rate, taxable and corporate bonds.

Bloomberg U.S. Corp High Yield 2% Issuer Capped Index is an unmanaged index comprised of fixed rate, non-investment grade debt securities that are dollar denominated. The index limits the maximum exposure to any one issuer to 2%.

Bloomberg U.S. Corporate Investment Grade Index includes publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity and quality requirements. To qualify, bonds must be SEC-registered. The corporate sectors are industrial, utility and finance, which include both U.S. and non-U.S. corporations.

Bloomberg U.S. Treasury Index measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint. STRIPS are excluded from the index because their inclusion would result in double-counting.

FTSE Global Core Infrastructure 50/50 Total Return Index comprises securities in developed countries which provide exposure to core infrastructure businesses, namely transportation, energy and telecommunications, as defined by FTSE's International Benchmark Classification.

The FTSE Nareit All Equity REITs Index is a free-float adjusted, market capitalization-weighted index of U.S. equity REITs.

HFRI 500 Fund Weighted Composite Index is a global, equal-weighted index of the largest hedge funds that report to the HFR Database which are open to new investments and offer quarterly liquidity or better.

ICE BofA Emerging Markets Corporate Plus Index, which tracks the performance of US dollar (USD) and Euro denominated emerging markets non-sovereign debt publicly issued within the major domestic and Eurobond markets.

ICE BofA U.S. High Yield Index tracks the performance of US dollar denominated below investment grade rated corporate debt publicly issued in the US domestic market.

ICE BofA U.S. Investment Grade Institutional Capital Securities Index tracks the performance of US dollar denominated investment grade hybrid capital corporate and preferred securities publicly issued in the US domestic market.

ICE BofA U.S. Corporate Index consists of investment-grade corporate bonds that have a remaining maturity of greater than or equal to one year and have $250 million or more of outstanding face value.

J.P. Morgan Emerging Markets Bond Index Global Core tracks liquid, U.S. dollar emerging market fixed and floating-rate debt instruments issued by sovereign and quasi sovereign entities.

ISM manufacturing index is a leading economic indicator that measures the growth in the manufacturing sector in the United States.

MSCI ACWI Index includes large and mid cap stocks across developed and emerging market countries.

MSCI ACWI Utilities Index captures large and mid cap representation across 23 Developed Markets (DM) and 24 Emerging Markets (EM) countries*. All securities in the index are classified in the Utilities sector as per the Global Industry Classification Standard (GICS®).

Market indices have been provided for comparison purposes only. They are unmanaged and do not reflect any fees or expenses. Individuals cannot invest directly in an index.

INDEX DESCRIPTIONS

MSCI Brazil Index is designed to measure the performance of the large and mid cap segments of the Brazilian market.

MSCI China Index captures large and mid cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs).

MSCI EAFE Index is listed for foreign stock funds (EAFE refers to Europe, Australasia, and Far East). Widely accepted as a benchmark for international stock performance, the EAFE Index is an aggregate of 21 individual country indexes.

MSCI Emerging Markets Index consists of large and mid cap companies across 24 countries and represents 10% of the world market capitalization. The index covers approximately 85% of the free float-adjusted market capitalization in each country in each of the 24 countries.

MSCI Europe Index captures large and mid cap representation across 15 Developed Markets (DM) countries in Europe.

MSCI Europe Banks Index is composed of large and mid cap stocks across 15 Developed Markets countries in Europe. All securities in the index are classified in the Banks industry group (within the Financials sector) according to the Global Industry Classification Standard (GICS®).

MSCI Germany Index is designed to measure the performance of the large and mid cap segments of the German market.

MSCI India Index is designed to measure the performance of the large and mid cap segments of the Indian market.

MSCI Japan Index is designed to measure the performance of the large and mid cap segments of the Japanese market.

MSCI United Kingdom Index is designed to measure the performance of the large and mid cap segments of the UK market.

MSCI USA Growth Index captures large and mid cap securities exhibiting overall growth style characteristics in the U.S. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.

MSCI USA Index is a market capitalization weighted index designed to measure the performance of equity securities in the top 85% by market capitalization of equity securities listed on stock exchanges in the United States.

MSCI USA Large Cap Index is designed to measure the performance of the large cap segments of the U.S. market.

MSCI USA Mid Cap Index is designed to measure the performance of the mid cap segments of the U.S. market.

MSCI USA Quality Index aims to capture the performance of quality growth stocks by identifying stocks with high quality scores based on three main fundamental variables: high return on equity (ROE), stable year-over-year earnings growth and low financial leverage. The MSCI Quality Indexes complement existing MSCI Factor Indexes and can provide an effective diversification role in a portfolio of factor strategies.

MSCI USA Small Cap Index is designed to measure the performance of the small cap segment of the U.S. equity market.

MSCI USA Value Index captures large and mid cap U.S. securities exhibiting overall value style characteristics. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

Russell 2000 Index is a small-cap U.S. stock market index that makes up the smallest 2,000 stocks in the Russell 3000 Index.

Standard & Poor's 500 Index is a market capitalization-weighted index of 500 widely held stocks often used as a proxy for the stock market.

U.S. dollar index (USDX) is a measure of the value of the U.S. dollar relative to a basket of foreign currencies.

Market indices have been provided for comparison purposes only. They are unmanaged and do not reflect any fees or expenses. Individuals cannot invest directly in an index.

IMPORTANT INFORMATION

Risk considerations

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