Principal Morley

Economic and market review

Principal Asset Allocation Viewpoints

As of June 30, 2023

Q3 2023 key themes

Europe is weakening, China is disappointing, and the U.S. is approaching recession.
While manufacturing has struggled, global growth has been supported by the services sector. Despite resilient U.S. growth, the foundations have been laid for a short and shallow recession later this year.

Inflation is decelerating, but at slow pace, and will end the year meaningfully above target.
Headline inflation is falling rapidly, but core inflation is proving to be a worry in developed markets (DM). Slower economic growth will be required to reach global central bank inflation targets. By contrast, emerging market (EM) inflation has fallen below DM inflation.

Most central banks are not done with monetary tightening; rate cuts off the agenda in DM.
Stubborn core inflation has led to a repricing of central bank rate hikes, with further hikes to come in most DM economies, including the Federal Reserve (Fed). Inflation caution also implies that rate cuts will not start in 2023.

High-quality fixed income offers stability and income in this unfolding economic backdrop.
Higher-quality bonds provide attractive all-in yields and important diversification benefits.

The S&P 500 entered a new bull market during Q2 2023

The rally has been driven by a small group of meg-cap technology, consumer discretionary, and communications stocks.

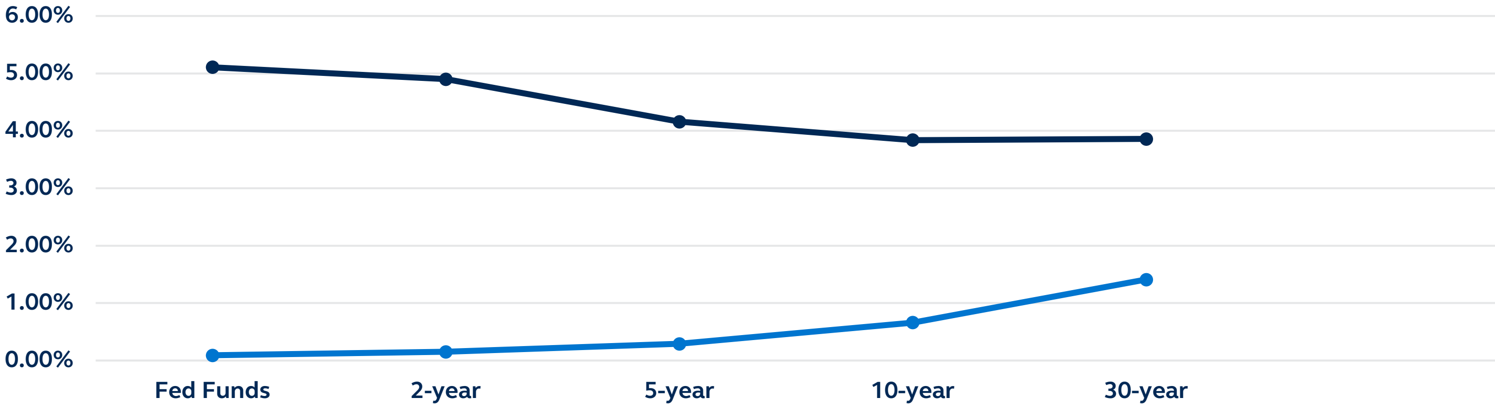
	3-month	YTD	1-year	3-year	5-year	10-year
Fixed Income						
ICE BofA U.S. Treasury Bill 3-month Index	1.17%	2.25%	3.59%	1.27%	1.55%	0.98%
Bloomberg Aggregate Bond Index	-0.84%	2.09%	-0.94%	-3.96%	0.77%	1.52%
Bloomberg U.S. Corp High Yld 2% Issuer Capped Index	1.75%	5.38%	9.07%	3.12%	3.34%	4.43%
Bloomberg Long-Term Govt/Credit Index	-1.29%	4.39%	-2.56%	-8.60%	0.66%	2.86%
U.S. Equities						
Russell 1000 Value Index	4.07%	5.12%	11.54%	14.30%	8.11%	9.22%
S&P 500 Index	8.74%	16.89%	19.59%	14.60%	12.31%	12.86%
Russell 1000 Growth Index	12.81%	29.02%	27.11%	13.73%	15.14%	15.74%
Russell Midcap Index	4.76%	9.01%	14.92%	12.50%	8.46%	10.32%
Russell 2000 Index	5.21%	8.09%	12.31%	10.82%	4.21%	8.26%
Non-U.S. Equities						
MSCI EAFE NTR Index	2.95%	11.67%	18.77%	8.93%	4.39%	5.41%
MSCI ACWI ex-USA Index	2.44%	9.47%	12.72%	7.22%	3.52%	4.75%
MSCI Emerging Markets Index	0.90%	4.89%	1.75%	2.32%	0.93%	2.95%
Other						
MSCI U.S. REIT Index	2.34%	4.78%	-1.38%	7.67%	3.34%	5.10%
S&P GSCI® Index	-2.73%	-7.54%	-14.22%	25.11%	2.76%	-3.52%
U.S. Dollar Index	0.22%	-1.09%	-2.16%	0.36%	0.86%	1.71%

As of 06/30/2023.
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?

	June 30, 2020	June 30, 2021	June 30, 2022	June 30, 2023
Fed Funds	0.09	0.04	0.95	5.11
2-year	0.15	0.25	2.95	4.90
5-year	0.29	0.89	3.04	4.16
10-year	0.66	1.47	3.01	3.84
2- to 10-year spread	0.51	1.22	0.06	-1.06
30-year	1.41	2.09	3.18	3.86



	Fed Funds	2-year	5-year	10-year	30-year
June 30, 2023	5.11%	4.90%	4.16%	3.84%	3.86%
June 30, 2020	0.09%	0.15%	0.29%	0.66%	1.41%

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

ASSET CLASS RETURNS AS OF JUNE 30, 2023

Best ↑

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD
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 16.89%
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%	Intl Stocks 11.67%
Real Estate 17.59%	Large Cap 32.39%	Large Cap 13.69%	Asset Allocation 1.28%	High Yield 17.34%	Large Cap 21.83%	Intl Bonds -1.66%	Real Estate 25.76%	Emerging Markets 18.31 %	Commodities 27.11%	High Yield -11.11%	Asset Allocation 10.81%
Intl Stocks 17.32%	Intl Stocks 22.78%	Asset Allocation 10.62%	Intermediate Bond 0.55%	Large Cap 11.96%	Mid Cap 16.24%	Government Treasury -1.84%	Small Cap 25.53%	Government Treasury 17.70%	Mid Cap 24.76%	Intermediate Bond -13.01%	Mid Cap 8.84%
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%	Small Cap 8.09%
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%	Real Estate 6.74%
High Yield 15.44%	Real Estate 1.86%	Small Cap 4.89%	Government Treasury -1.21%	Asset Allocation 8.31%	Intl Bonds 9.92%	Large Cap -4.38%	Emerging Markets 18.44 %	Intl Bonds 10.52%	Intl Stocks 11.26%	Asset Allocation -15.79%	High Yield 5.34%
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 4.89%
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%	Emerging Markets -20.09%	Government Treasury 3.72%
Government Treasury 3.56%	Emerging Markets -2.60%	Emerging Markets -2.19%	High Yield -4.55%	Intl Bonds 1.86%	Real Estate 4.18%	Mid Cap -11.08%	Intermediate Bond 8.72%	High Yield 6.20%	Intermediate Bond -1.54%	Small Cap -20.44%	Cash 2.39%
Intl Bonds 0.85%	Intl Bonds -5.06%	Intl Bonds -2.53%	Intl Bonds -4.84%	Government Treasury 1.33%	Intermediate Bond 3.54%	Commodities -11.25%	Commodities 7.69%	Cash 0.58%	Emerging Markets -2.54%	Intl Bonds -21.87%	Intermediate Bond 2.09%
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 5.23%	Commodities -3.12%	Government Treasury -4.65%	Real Estate -26.81%	Intl Bonds 0.07%
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 -9.51%	Government Treasury -29.26%	Commodities -7.79%

Worst ↓

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-Bloomberg Long Treasury, Commodities-Bloomberg Commodity Idx, Intermediate Bond-Bloomberg US Agg Bond Idx, High Yield Bond-ICE BofAML High Yield Idx, Intl Bonds-JPMorgan GBI Global ex U.S., Asset Allocation-portfolio assumes the following weights: 60% S&P 500 and 40% Bloomberg 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: Shades of grey

In the face of multiple and significant headwinds, global economic growth has proved resilient. Yet, this is more than a one-size-fits-all picture. While services activity is buoyant, global manufacturing activity is struggling.

Regionally, there is some divergence. While U.S. growth has remained robust, the European economy fell into recession at the end of 2022, and China's post-reopening economic recovery has lost significant momentum.

The outlook for the rest of the year is relatively downbeat. Europe's growth is set to slow, with recovery likely to be limited by tight European Central Bank (ECB) monetary policy. In China, in the absence of significant and proactive policy stimulus, activity will likely remain somewhat depressed. In the U.S., recession risk remains heightened, with concerns centering around profit margin compression and tightening credit conditions.

Indeed, while the continued resilience of consumers and the labor market suggest that a U.S. recession is not imminent, leading indicators almost uniformly signal slowing economic growth as the full effects of significant and aggressive Fed tightening are finally felt.

With three largest economies facing varying levels of slowdown, the global growth outlook has deteriorated.

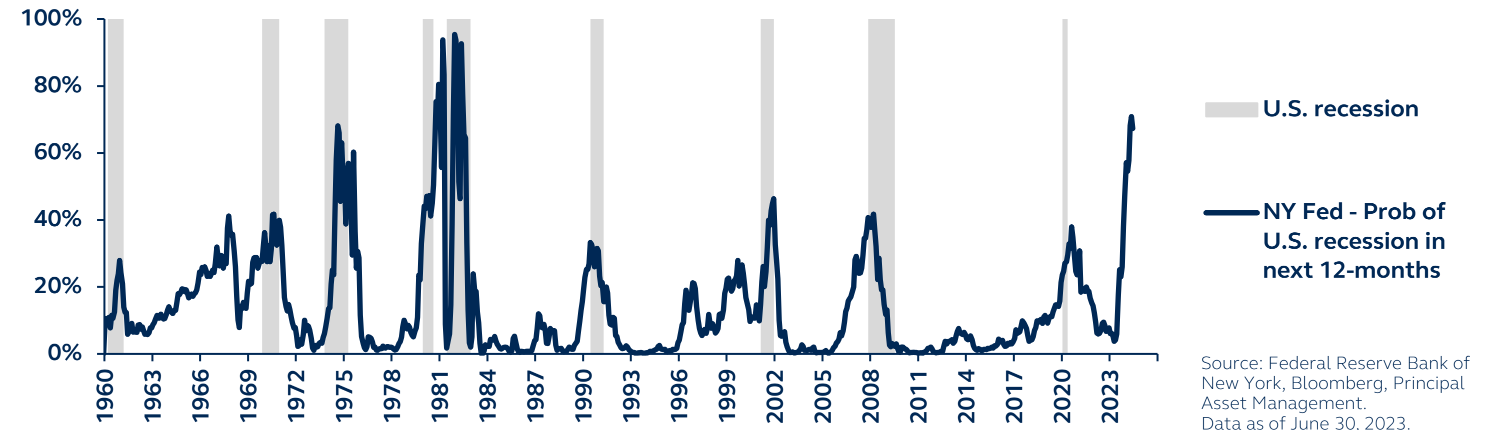
Developed market and China Purchasing Managers' Index (PMI)

May 2008–May 2023

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

U.S. recession probability in next 12 months

Federal Reserve Bank of New York, 1960–present



Source: Federal Reserve Bank of New York, Bloomberg, Principal Asset Management.
Data as of June 30, 2023.

Recession: Stop me if you've heard this one before…

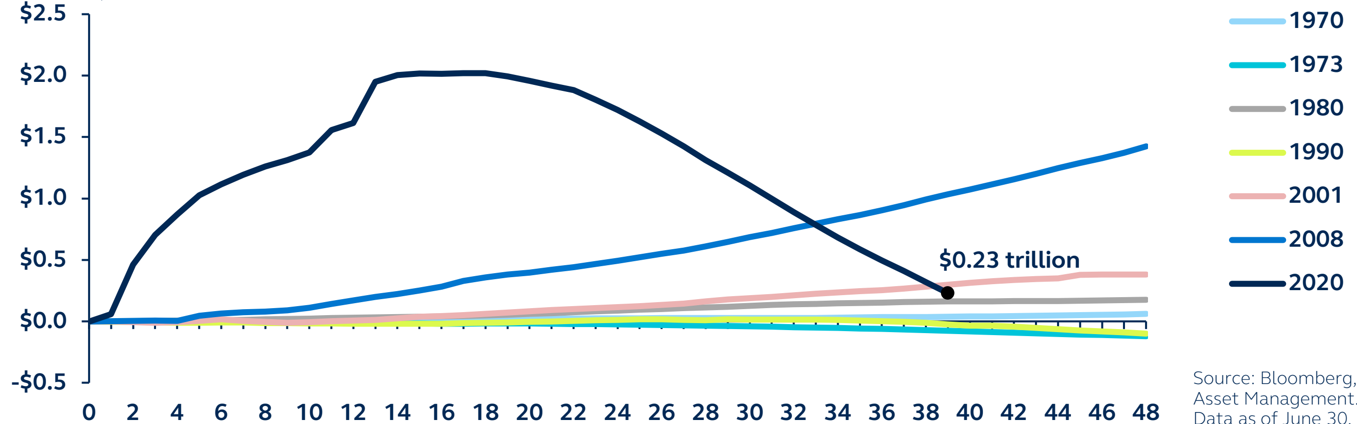
Despite significant monetary tightening, incoming U.S. economic activity data is nowhere near recessionary. Yet, this doesn't mean that interest rate hikes aren't working. Policy works with lags, and the full impact of previous hikes is only now starting to unfold. Several factors will stop supporting the U.S. economy over the coming months and are expected to combine to tip the U.S. into mild recession by year-end:

- Labor demand has been robust, but a softening trend is tentatively beginning to emerge, with monthly non-farm payrolls falling to their lowest level since COVID. Average hours worked have been drifting lower, jobless claims are on the rise. These are leading indicators of job losses.
- Consumer activity has been strongly supported by the historically large excess savings cushion. However, savings are gradually being eroded by exuberant spending, inflation, mortgage costs, and time. At the current pace of drawdown, excess savings will be exhausted by 4Q 2023, removing a major support structure for the U.S. economy.
- The recent banking crisis will likely further deteriorate the economic picture. Tightening credit conditions usually act as an accelerant to the unwind in both consumer spending and the labor market.

Deterioration in both consumer spending and labor market activity will likely precipitate the arrival of one of the most anticipated recessions in history.

Aggregate excess savings following recession

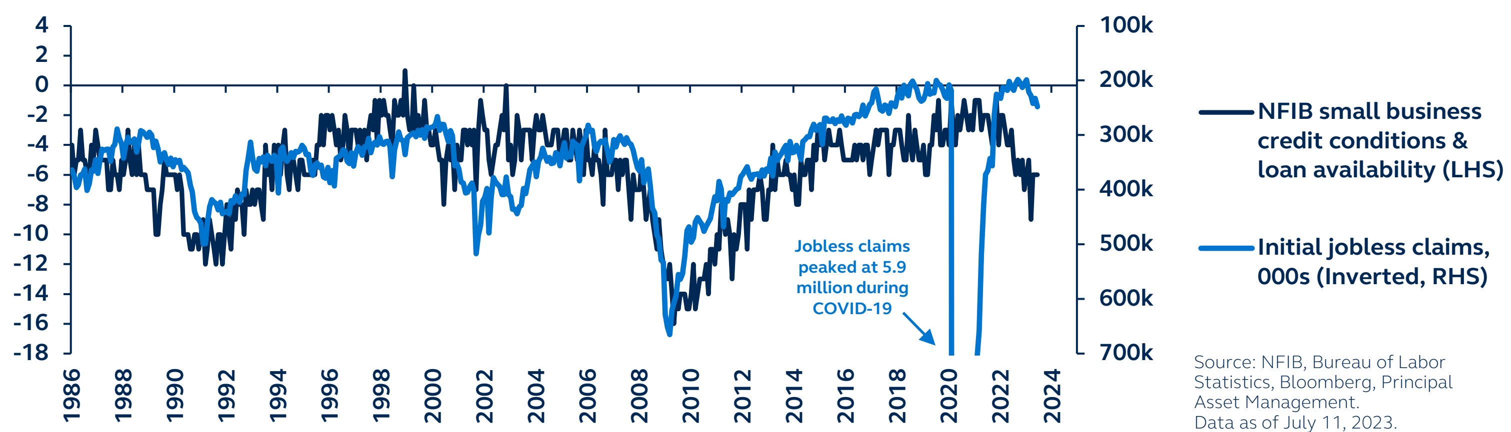
Trillions, months since start of recession



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

Small business credit conditions and initial jobless claims

1986–present



Source: NFIB, Bureau of Labor Statistics, Bloomberg, Principal Asset Management. Data as of July 11, 2023.

Global disinflation dispersion

Global headline inflation continues to moderate, helped along by falling energy prices. However, developed market core inflation remains very elevated:

- U.S. core inflation has fallen only slightly, and monthly core inflation is essentially unchanged from late-2022.
- Euro-area core inflation has only just peaked, and price pressures remain very broad across the economy.
- UK core inflation is still yet to peak.
- Japan's inflation is broadening, reaching healthier levels.

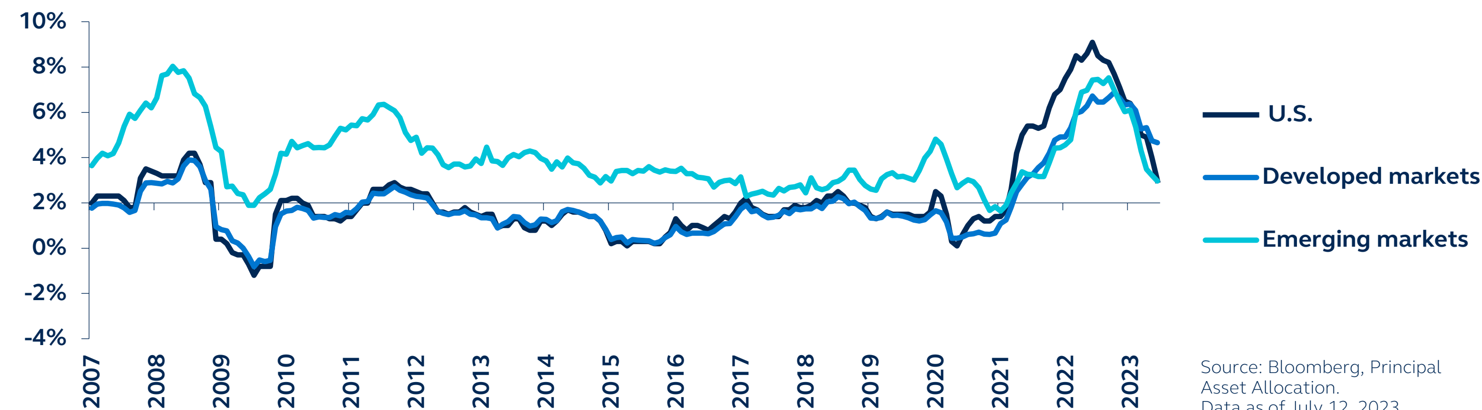
DM inflation is likely to remain notably higher than global central bank targets. Core commodities inflation in the U.S. is expected to fall further, given the ongoing weakness in goods demand, and shelter inflation should begin to abate slowly. The concern lies in the very slow deceleration of core services ex-housing. If the labor market remains extremely tight, inflation in this critical segment will remain too high for the Fed's comfort, and the disinflation trend will be incomplete.

By contrast, China's consumer prices are barely increasing, and emerging market inflation actually fell below developed market inflation in April.

DM central banks have made less progress towards disinflation than they had hoped. Inflation is likely to remain sticky and will still sit above global central bank targets at year-end.

Principal Asset Allocation GDP-weighted inflation

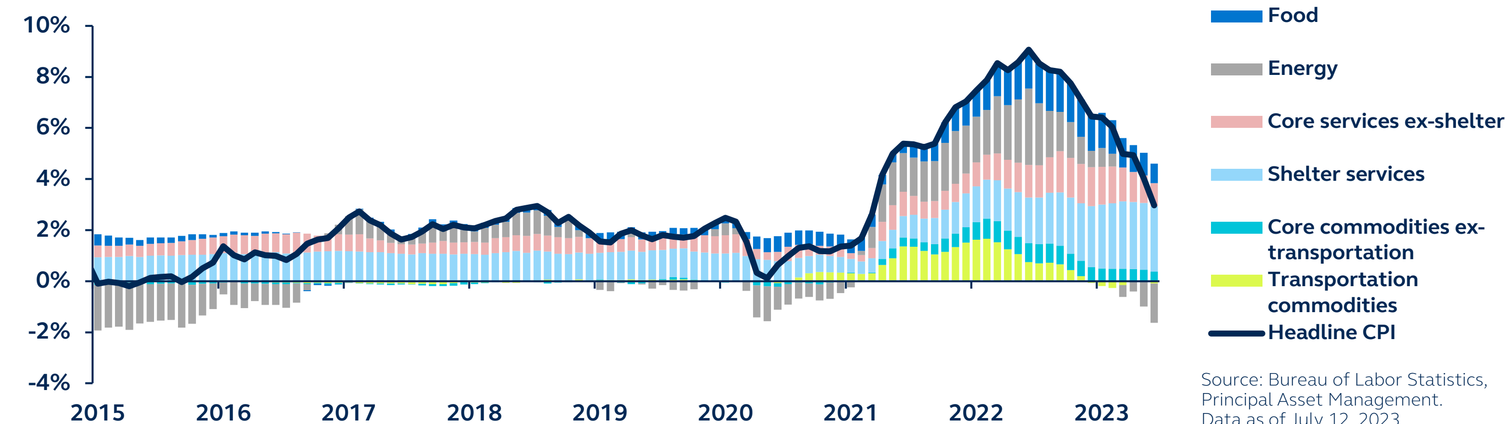
January 2007–present



Source: Bloomberg, Principal Asset Allocation. Data as of July 12, 2023.

Contribution to headline U.S. inflation

Year-over-year, January 2015–present



Source: Bureau of Labor Statistics, Principal Asset Management. Data as of July 12, 2023.

Central bank tightening: Not the end of the road just yet

During early 2Q, broad market consensus converged around the idea that global monetary loosening would start before year-end, with this expectation lifting risky assets. However, it has become clear that rate hikes are yet to have the desired impact on inflation, requiring further tightening.

The Fed's latest dot pot shows that most committee members expect at least two more hikes this year. By contrast, with modest recession on the horizon, our long-held Fed forecast sees just one more increase, bringing policy rates to a peak of 5.25%-5.50%.

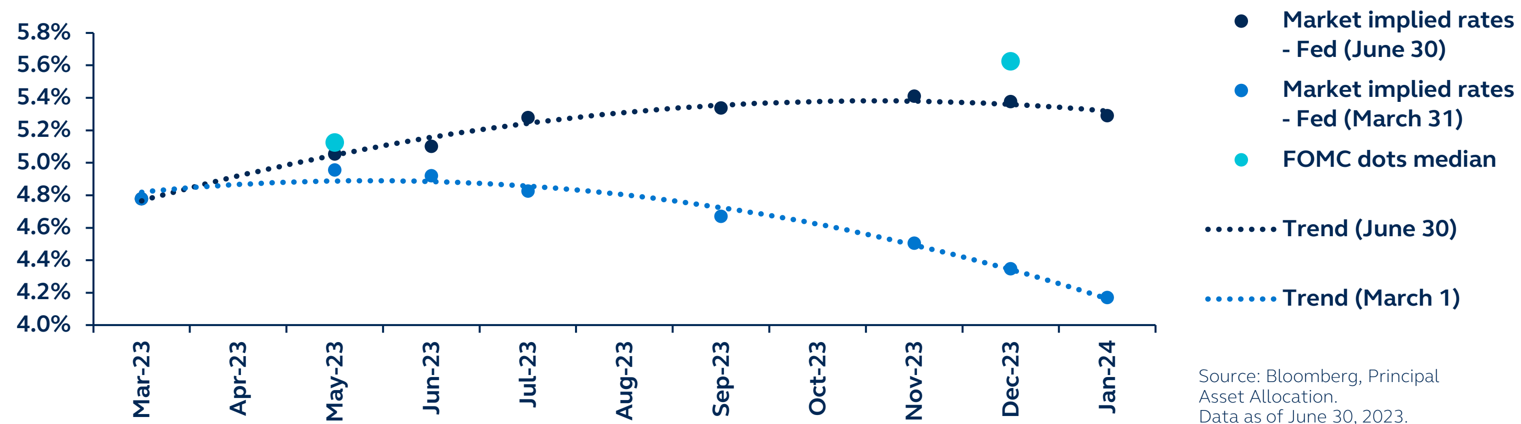
Both the ECB and the Bank of England (BoE) have inflation challenges. For the ECB, this implies hikes may persist into Autumn. For the BoE, policy rates will likely rise another 100 basis points and may exceed 6%, raising the risk of recession.

Central banks will need to keep an eye on financial stability. The U.S. regional banking crisis is past the acute phase, but additional tightening may threaten renewed stress. Inflation persistence also means that rate cuts are off the agenda for all major developed market central banks this year. By contrast, central banks in emerging markets, who began hiking rates in 2021, well before their DM counterparts, are either cutting rates or will soon start.

Inflation persistence mean that markets need to raise their developed market rate expectations, and also price out any rate cuts this year.

Federal Reserve rates path

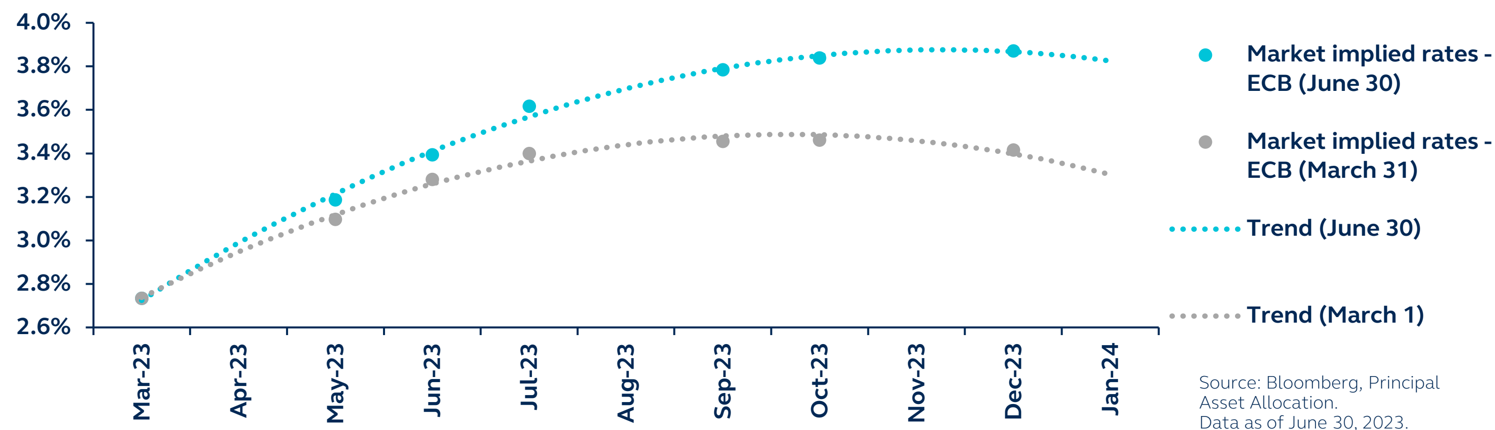
Future market priced fed funds rates path as of March 31 vs. June 30



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

European Central Bank rates path

Future market priced ECB rates path as of March 31 vs. June 30



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

Financial conditions are overdue a reversal

Financial conditions describe how policy influences the economy through the intermediation of a wide range of market rates, risk premia, and spreads, as well as the exchange rate.

Despite continued rate hikes and the threat of recession, global financial conditions loosened in 2Q as investors became increasingly optimistic about several factors, including an imminent end to global central bank hikes, rate cuts later this year, and a potential U.S. soft landing.

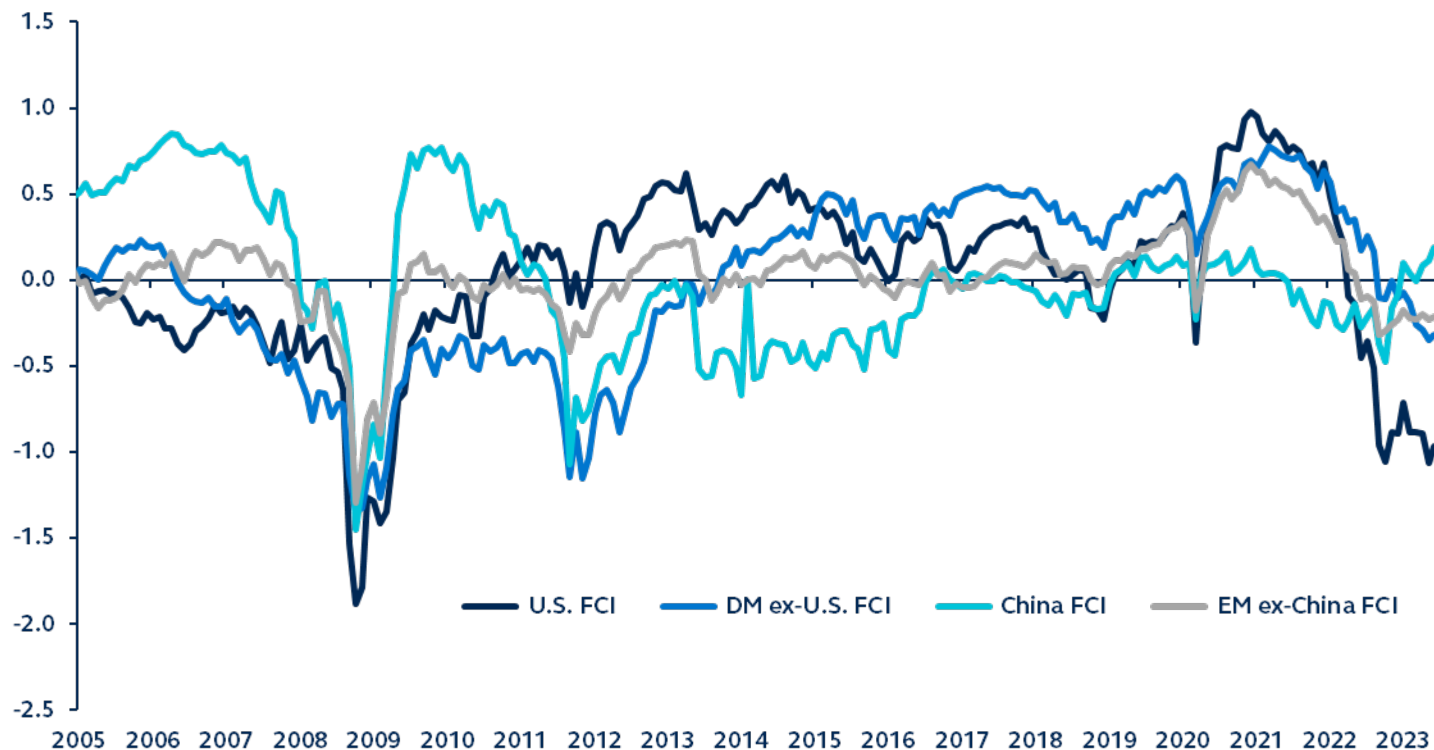
However, optimistic growth expectations need to be questioned now that risks have swung towards higher terminal policy rates. As a result, market sentiment is beginning to look vulnerable, with DM financial conditions likely to tighten in the second half of 2023.

The emerging market financial conditions picture may look more constructive. Falling central bank rates in many EM economies should cushion them from the broad deterioration in global growth and market sentiment. For China, however, policy rate cuts may not be enough to offset the weakness in growth, suggesting China's risk assets may continue to struggle.

Now that risks have swung towards higher terminal rates, market sentiment is beginning to look vulnerable and financial conditions are overdue a tightening trend.

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 June 30, 2023.

Fixed income: Interest rate risk is favorable to equity risk

2Q began at the height of regional bank failures, which had bolstered safe-havens such as treasurys and investment grade bonds, and depressed riskier fixed income sectors. As concerns about the banking sector faded and economic data showed resilience, future Fed rate cuts were pushed out to 2024—driving an underperformance in more secure assets relative to high yield credit and even equities.

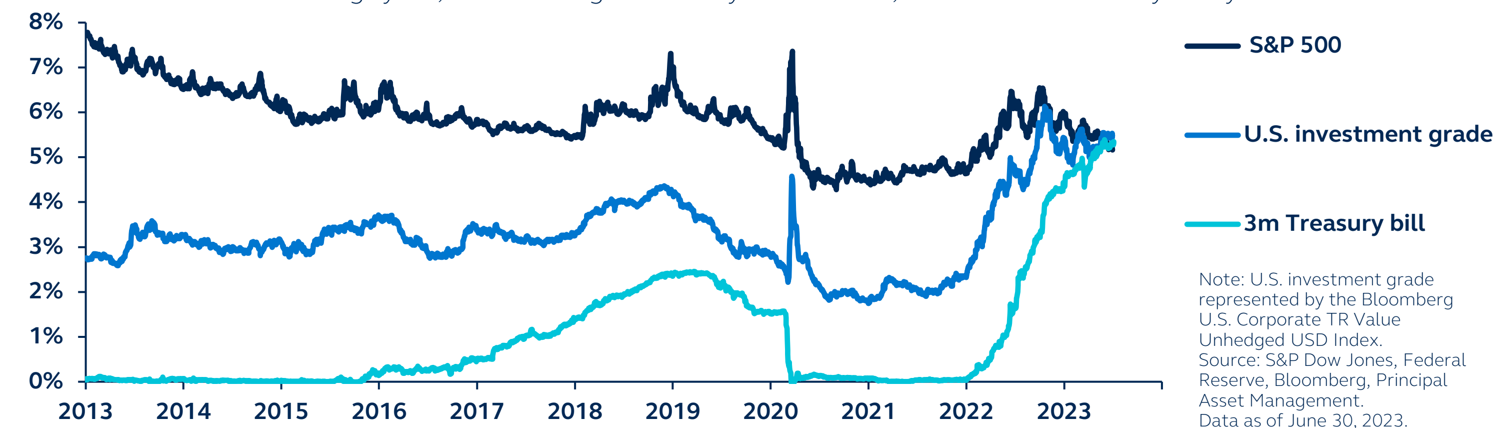
While this performance seems justified by current economic resilience, it conflicts with forward-looking indicators suggestive of future economic deterioration. As the lagged effects of central bank tightening begin to take their toll on credit conditions and the economy slows, recent buoyancy in equities and riskier credit sectors is likely to unwind, with higher defaults, downgrades, and widening credit spreads.

In a slower growth environment, fixed income looks preferential to equities. Unlike bonds, equities don't sufficiently account for recession risk, as evidenced by the subdued level of equity volatility relative to the elevated level of bond volatility. In fact, the earnings yield on stocks is now less than safer U.S. Treasurys and high-grade corporate bonds. Locking in more secured income streams and adding diversification via bonds can be prudent as an economic slowdown unfolds.

Investors are getting higher compensation for taking interest rate risk than equity risk. With the economy set to slow, there's strong rationale for locking-in more secure fixed income streams.

Yield comparison: S&P 500, investment grade bonds, and 3-month Treasury bills

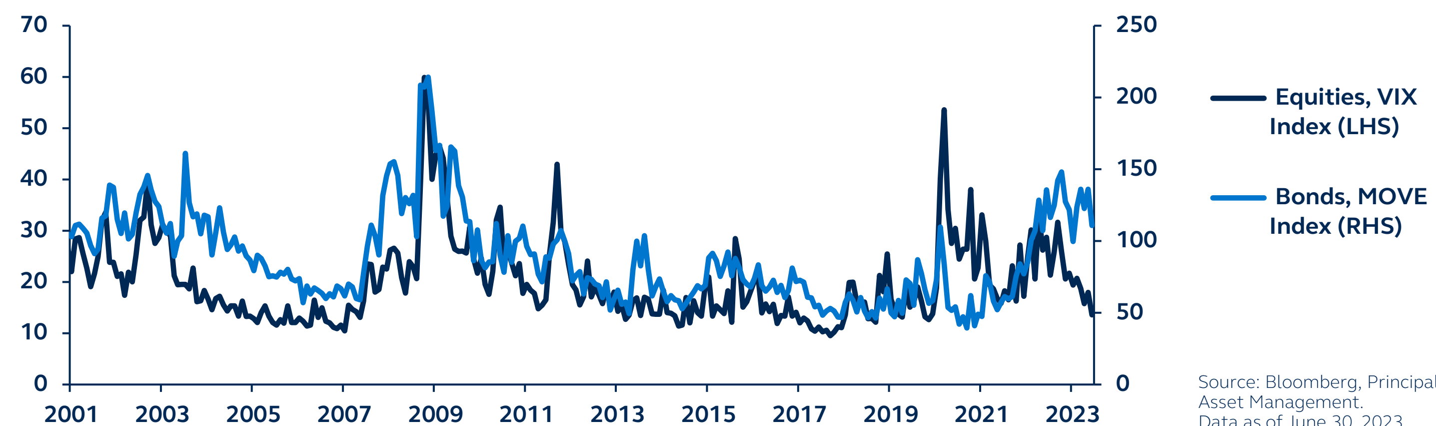
S&P 500 12m forward earnings yield, investment grade bond yield-to-worst, and 3-month Treasury bills yield



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 June 30, 2023.

Equity versus bond volatility

2001–present



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

U.S. Treasurys: Playing an important role in portfolios

With central bank policy rates at their highest in over a decade, the value provided by sovereign bonds, particularly U.S. Treasurys, has seldom been greater. Investors are getting much higher compensation for taking interest rate risk than in previous years.

As the stock-bond correlation has turned negative, U.S. Treasurys are providing important diversification benefits and risk mitigation. While equities are likely to face earnings headwinds from a slowing U.S. economy, bond yields should come under downward pressure as expectations for future interest rates are reduced, thereby providing capital appreciation to bondholders. As such, bonds can act as a hedge against volatility and equity drawdowns.

The recent resolution to the debt ceiling discussion has raised concerns about potential upside interest risk. After hitting the debt limit in January, the U.S. Treasury ran down its cash balance to keep making payments and now must issue around $1 trillion in debt to replenish it. As issuance is expected to be primarily short-term bills rather than notes or bonds, overall demand, especially from money market funds, should be sufficient to absorb it with little risk to long-dated maturities.

As the economy slows, U.S. Treasurys will likely provide important security and diversification benefits, as well as capital appreciation.

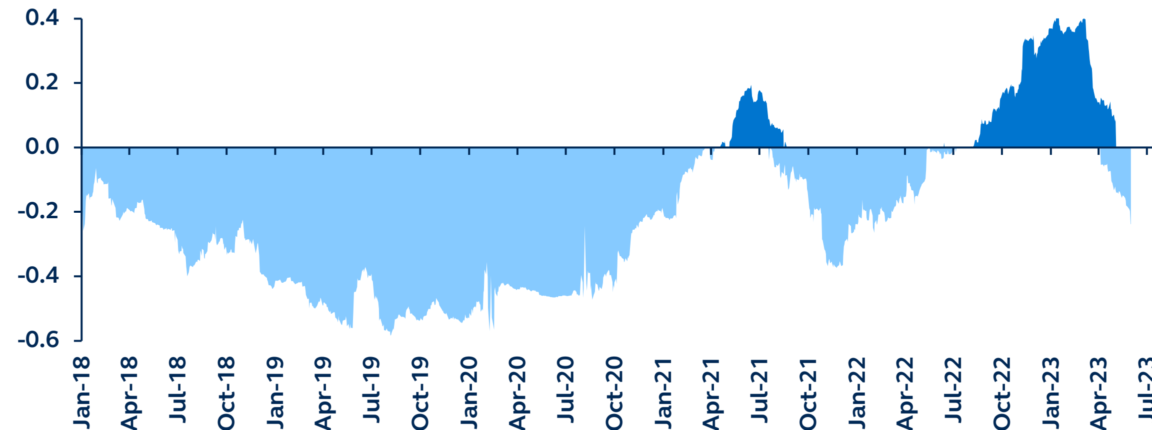
10-year Treasury yield and the ISM Manufacturing Index

Year-over-year change, 1991–present

Source: Institute for Supply Management, Standard & Poor's, Bloomberg, Principal Asset Management. Data as of June 30, 2023.

S&P 500 versus Bloomberg Treasury Index correlation

Rolling 120-day correlation, total return, 2018–present



Note: Correlation is of 1-day returns, within a 120-day rolling window. Source: S&P Dow Jones, Federal Reserve, Bloomberg, Principal Asset Allocation. Data as of June 30, 2023.

Navigate credit headwinds with high-quality assets

High-quality bonds underperformed low-quality bonds in 2Q as fears around the regional banking crisis and debt ceiling impasse eased. With soft-landing hopes increasing, investors are becoming more optimistic about high yield relative to investment grade (IG). While investment grade spreads have been more expensive 41% of the time since December 2000, high yield spreads have only been more expensive 33%. Higher-risk credit markets don't appear to be pricing in potential financial stress or economic downturns, and investors should be wary.

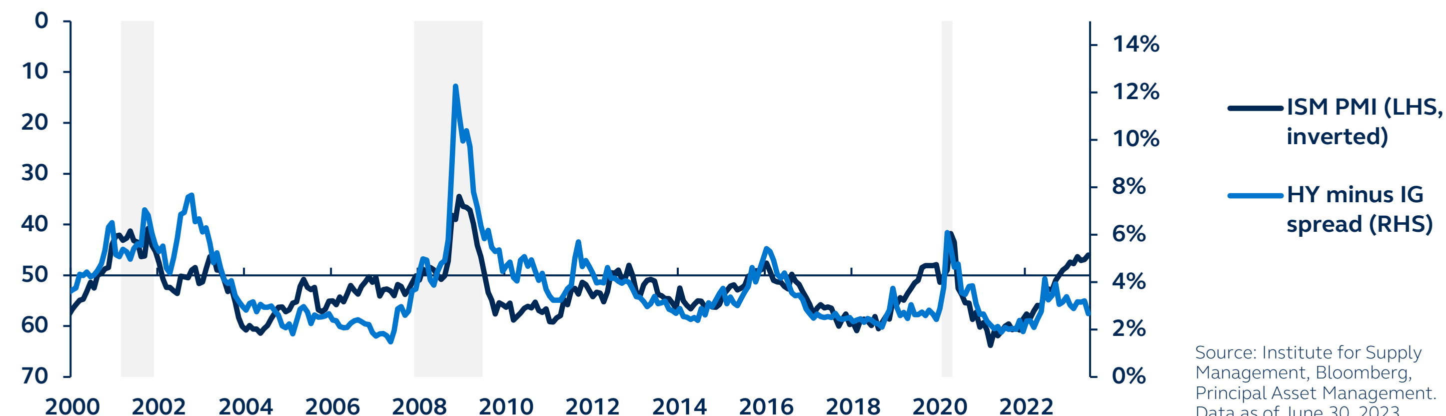
Historically, high-quality credit assets tend to outperform during economic downturns, and during recessions, the credit spreads between U.S. high yield and investment grade bonds tend to widen the most. While the upcoming recession will likely be mild, falling PMI activity indicators and tightening lending standards are already pointing towards wider spreads.

In addition to the spread impact, high-quality bonds also benefit from longer duration. During economic downturns, falling Treasury yields typically result in greater price gains for investment grade credit due to IG's higher duration versus high yield bonds.

Higher-quality fixed income assets should outperform in economic downturns, benefitting from tighter spreads and longer duration.

High yield minus investment grade spreads versus ISM Manufacturing PMI

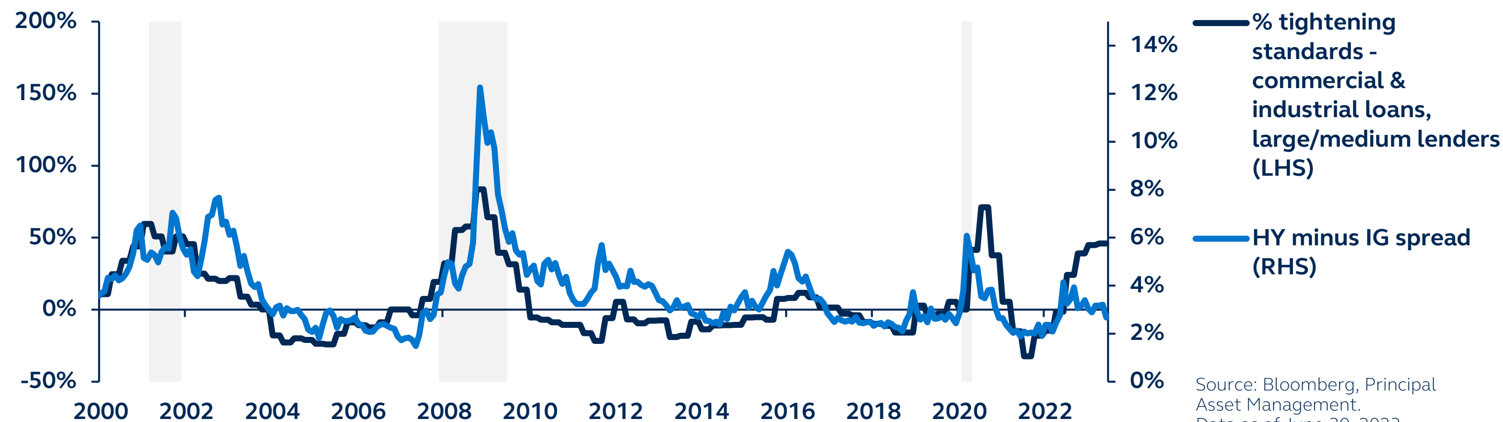
U.S. recessions are shaded, 2000–present



Source: Institute for Supply Management, Bloomberg, Principal Asset Management. Data as of June 30, 2023.

High yield minus investment grade spreads versus Senior Officer Loan Survey

U.S. recessions are shaded, 2000–present



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

INDEX DESCRIPTIONS

Bloomberg Commodity Spot Index measures the price movements of commodities included in the Bloomberg CI and select subindexes. It does not account for the effects of rolling futures contracts or the costs associated with holding physical commodities and is quoted in USD.

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. 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 Barclays 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.

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. 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 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.

INDEX DESCRIPTIONS

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.

MOVE index, or Merrill Lynch Option Volatility Estimate Index, is a crucial gauge of interest rate volatility in the U.S. Treasury market. The index measures the implied volatility of U.S. Treasury options across various maturities.

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.

VIX is the ticker symbol and the popular name for the Chicago Board Options Exchange's CBOE Volatility Index, a popular measure of the stock market's expectation of volatility based on S&P 500 index options.

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.

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IMPORTANT INFORMATION

Risk considerations

Investing involves risk, including possible loss of principal. Past performance is no guarantee of future results. Asset allocation and diversification do not ensure a profit or protect against a loss. Equity investments involve greater risk, including higher volatility, than fixed-income investments. **Fixed-income investments** are subject to interest rate risk; as interest rates rise their value will decline. **International and global investing** involves greater risks such as currency fluctuations, political/social instability and differing accounting standards. Potential investors should be aware of the risks inherent to owning and **investing in real estate**, including value fluctuations, capital market pricing volatility, liquidity risks, leverage, credit risk, occupancy risk and legal risk. **Non-investment grade securities** offer a potentially higher yield but carry a greater degree of risk. Risks of **preferred securities** differ from risks inherent in other investments. In particular, in a bankruptcy preferred securities are senior to common stock but subordinate to other corporate debt. **Emerging market debt** may be subject to heightened default and liquidity risk. **Risk is magnified in emerging markets**, which may lack established legal, political, business, or social structures to support securities markets. **Small and mid-cap stocks** may have additional risks including greater price volatility. **Treasury inflation-protected securities (TIPS)** are a type of Treasury security issued by the U.S. government. TIPS are indexed to inflation in order to help investors from a decline in the purchasing power of their money. As inflation rises, rather than their yield increasing, TIPS instead adjust in price (principal amount) in order to maintain their real value. Inflation and other economic cycles and conditions are difficult to predict and there Is no guarantee that any inflation mitigation/protection strategy will be successful. **Contingent Capitals Securities** may have substantially greater risk than other securities in times of financial stress. An issuer or regulator's decision to write down, write off or convert a CoCo may result in complete loss on an investment. **Real assets** include but not limited to precious metals, commodities, real estate, land, equipment, infrastructure, and natural resources. Each real asset is subject to its own unique investment risk and should be independently evaluated before investing. As an asset class, real assets are less developed, more illiquid, and less transparent compared to traditional asset classes.

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