GLOBAL INSIGHTS • GLOBAL INSIGHTS • GLOBAL INSIGHTS • GLOBAL

3Q 2023

Principal Asset Management[SM]

Global Asset Allocation Viewpoints

Time is running out

PRINCIPAL GLOBAL INSIGHTS TEAM

Todd Jablonski, CFA
CIO, Asset Allocation

Seema Shah
Chief Global Strategist

Garrett Roche, CFA, FRM
Director, Global Strategist

Han Peng, CFA
Director, Quantitative Strategist

Brian Skocypec, CIMA
Director, Global Insights & Content Strategy

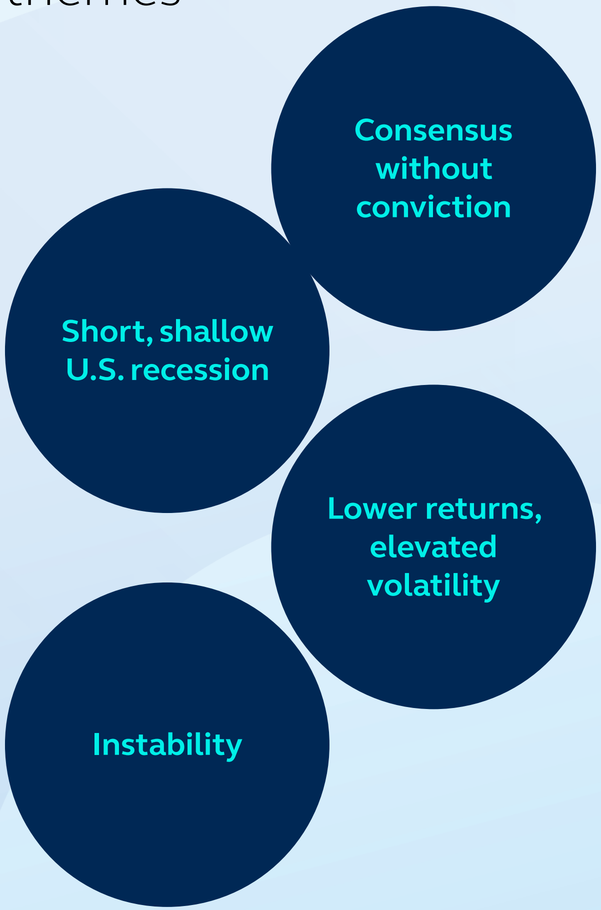
Ben Brandsgard
Insights Strategist

Table of Contents

Key themes for 3Q 2023

- **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 a 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.
- **Equities will come under pressure as earnings weaken and further rate hikes test valuations.** Notably, as a U.S. recession will likely be short and shallow, any equity pullback will likely be short and shallow. The following recovery will likely be reasonably swift, requiring a nimble and active response from investors.
- **High-quality fixed income offers stability and income in this unfolding economic backdrop.** While higher-quality bonds will likely outperform and provide important diversification benefits, the mild recovery implies high yield (HY) defaults may not spike significantly, and elevated HY yields could provide a decent cushion as spreads widen.
- **Alternatives provide important diversification against traditional equities and fixed income.** Inflation is decelerating but remains sticky and elevated, so inflation mitigation via infrastructure remains crucial for investors. By contrast, the slowing growth outlook will further depress commodities and natural resources.

Investment themes



Consensus without conviction

There is currently minimal dispersion in the macroeconomic view amongst investors. A U.S. growth slowdown, an approaching end to Fed tightening, and disinflation are the three almost universally shared expectations connecting most views.

Yet, the continued resilience of the labor market, stickiness of inflation, and gravity-defying gains of artificial intelligence (AI) related stocks have muddied the picture and injected significant uncertainty into the outlook. As a result, investors have limited conviction about near-term market trends and are waiting for clarity about where the economy, rates, and markets will go before taking active positions.

Against an uncertain and confusing macro backdrop, investors would be best served by having a well-diversified broad toolkit among strategies, products, and industries.

Short, shallow U.S. recession

The extent of Fed tightening will likely drive the U.S. into recession. However, this recession—starting in 4Q 2023—will likely be of shorter duration and shallower magnitude than the historical average. Not only are consumers benefitting from the cushion of excess savings, but labor supply is so tight that a cooling of labor demand may not necessarily lead to significant job losses. Furthermore, the health of household and business balance sheets implies that much of the interest rate sensitivity of the economy has diminished.

A short, shallow recession implies that the period ahead will be nothing like the Global Financial Crisis, where asset values were fundamentally impacted for a prolonged time. Instead, a rapid resumption of positive market returns is likely after a correction in valuations to more reasonable levels. Investors should be ready to increase risk asset exposure as the economy approaches its trough.

Lower returns, elevated volatility

The reversal in ultra-loose global central bank policy has led to an almost unrecognizable global investment landscape. Unlike the golden era of the past decade, where low inflation and low interest rates were suppressing volatility and lifting asset prices, the higher interest rate environment is now uncovering market strains and raising volatility.

Investor behavior will need to adjust: Expectations for long-term returns need to be lowered, and expectations for volatility need to be raised. Portfolios will need to reallocate risk to take advantage of market inefficiencies and minimize exposure to macro-driven threats.

Consider the potential risks

Financial instability: The drastic rise in rates risks further severe liquidity disruption. Markets have navigated the rate increases and the regional banking crisis without too much disruption, but there is no guarantee that the remainder of 2023 will be as straightforward.

Market melt-up: The AI craze has likely moved too far, too fast. But, without any clear catalyst, mega-cap stocks may continue to rise uninterrupted, pulling up the whole market with them. In this melt-up scenario, valuations would become even more top-heavy, creating a market extremely vulnerable to a significant correction.

Resurgent inflation: If a meaningful decline in core inflation does not materialize, or if inflation starts to rise again, the Fed and other central banks may need to resume aggressive policy tightening. Not only would that deliver additional headwinds to growth, but also add to financial instability risk.

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.

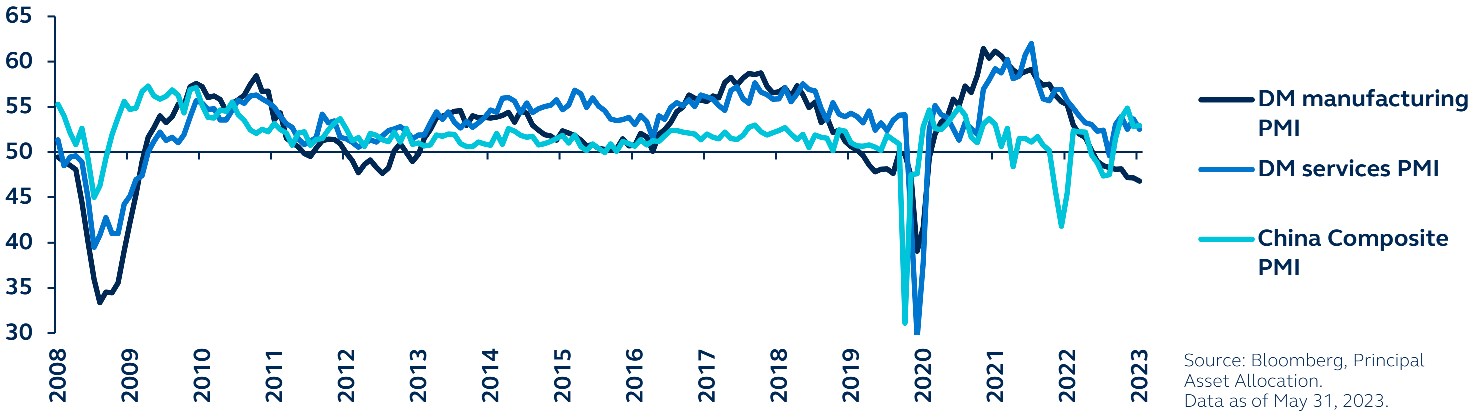
The outlook for the rest of the year is relatively downbeat. Europe's growth is set to slow, with recovery likely to be limited by tight European Central Bank (ECB) monetary policy. In China, in the absence of significant and proactive policy stimulus, activity will likely remain somewhat depressed. 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 the three largest economies facing varying levels of slowdown, the global growth outlook has deteriorated.

Developed market and China Purchasing Managers' Index (PMI)

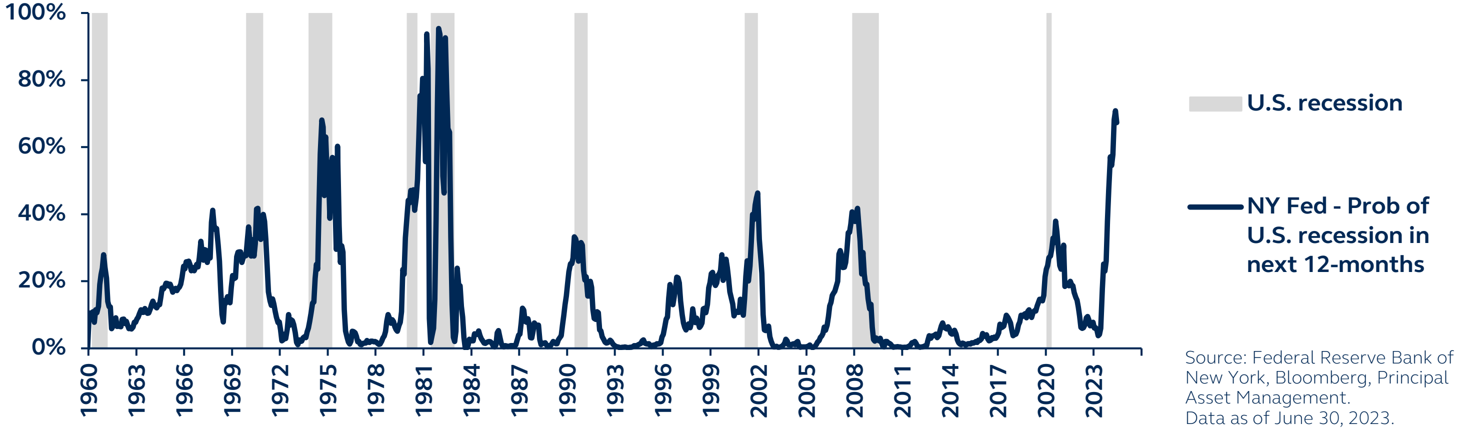
May 2008–May 2023



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…

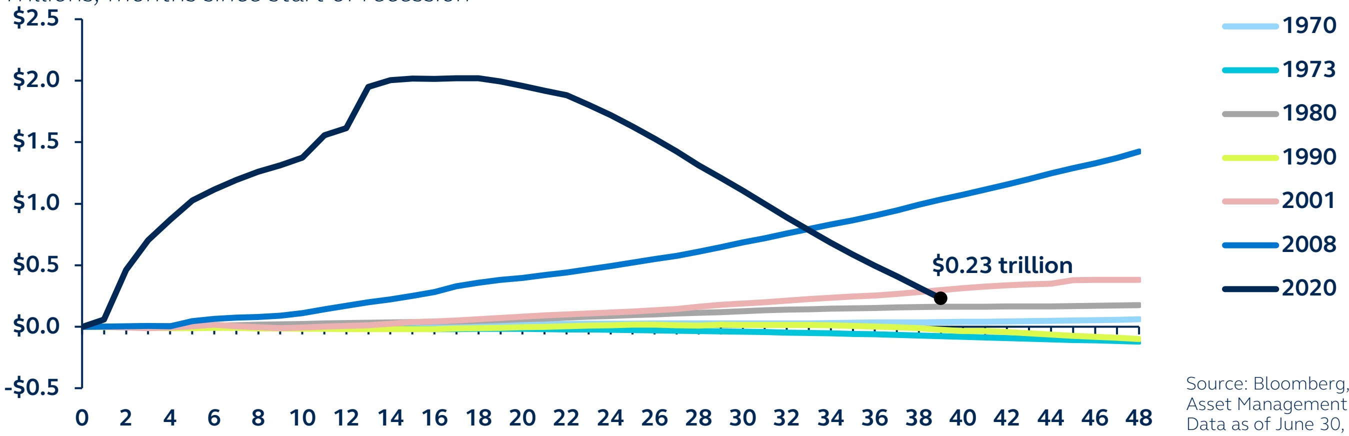
Despite significant monetary tightening, incoming U.S. economic activity data is nowhere near recessionary. Yet, this doesn't mean that interest rate hikes aren't working. Policy works with lags, and the full impact of previous hikes is only now starting to unfold. Several factors will stop supporting 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

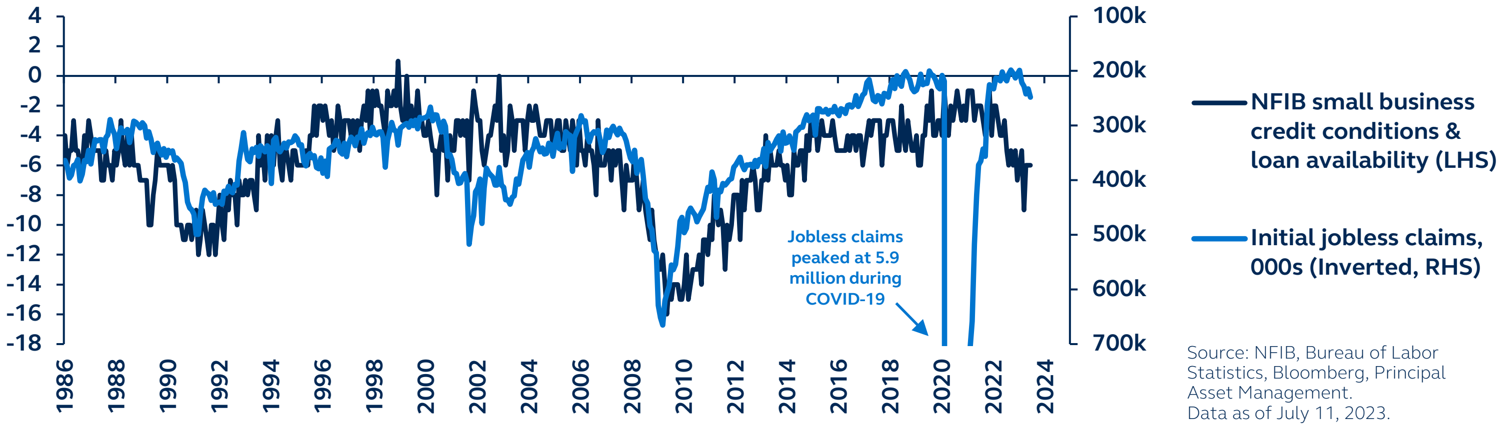
Trillions, months since start of recession



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.

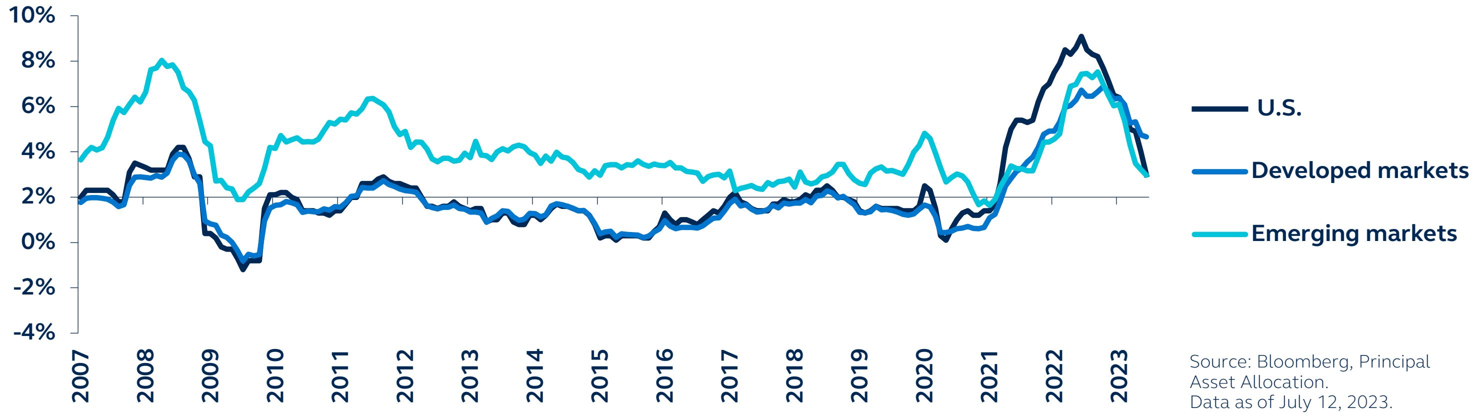
DM inflation is likely to remain notably higher than global central bank targets. Core commodities inflation in the U.S. is expected to fall further, given the ongoing weakness in goods demand, and shelter inflation should begin to abate slowly. The concern lies in the very slow deceleration of core 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

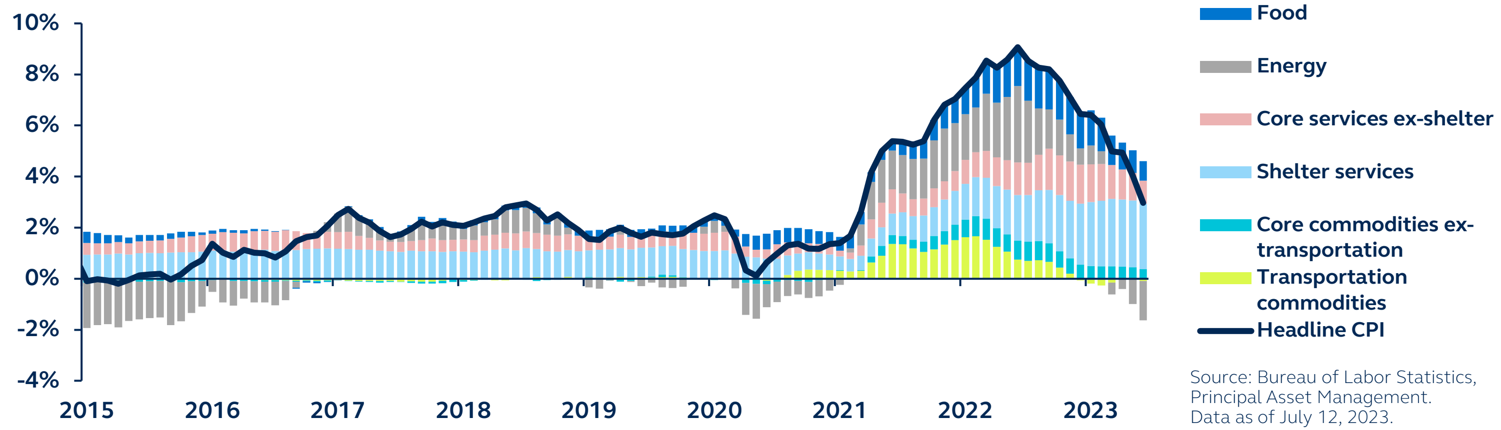
January 2007–present



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%.

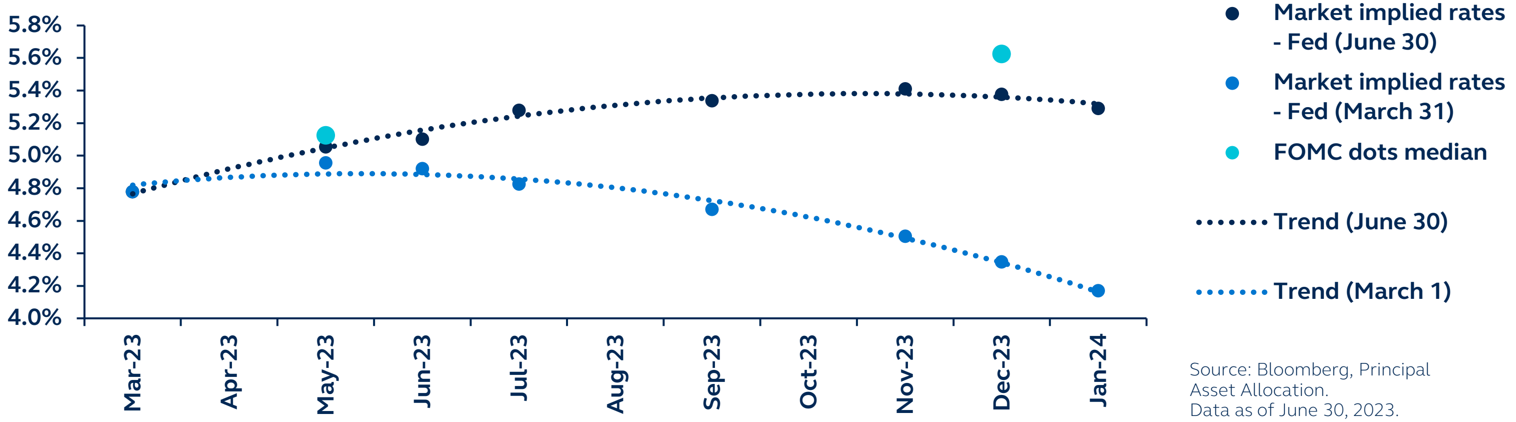
Both the ECB and the Bank of England (BoE) have inflation challenges. For the ECB, this implies hikes may persist into Autumn. For the BoE, policy rates will likely rise another 100 basis points and may exceed 6%, raising the risk of recession.

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

Federal Reserve rates path

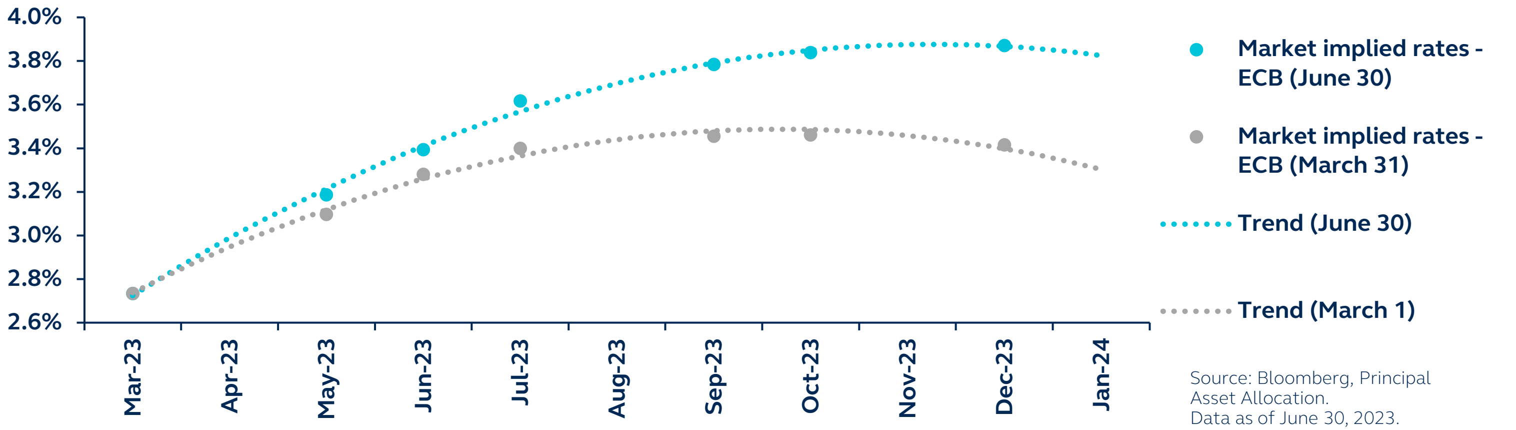
Future market priced fed funds rates path as of March 31 vs. June 30



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.

Principal Asset Management℠

Lessons from the 70s: No space for rate cuts in 2023

While it's reasonable to assume the Fed might provide relief if the economy falls into recession later this year, a modest contraction in activity and limited rise in job losses would not justify rate cuts. History clearly warns against cutting rates before inflation price stability has been achieved.

The striking similarities between U.S. inflation developments today and those of the early 1970s could be instructive for the path forward. During the inflation spike of that period, the Fed also responded with steep interest rate hikes. After some time, the Fed was anxious to ease monetary policy, cutting interest rates before inflation had fallen back to levels consistent with price stability. The result was a resurgence in price pressures.

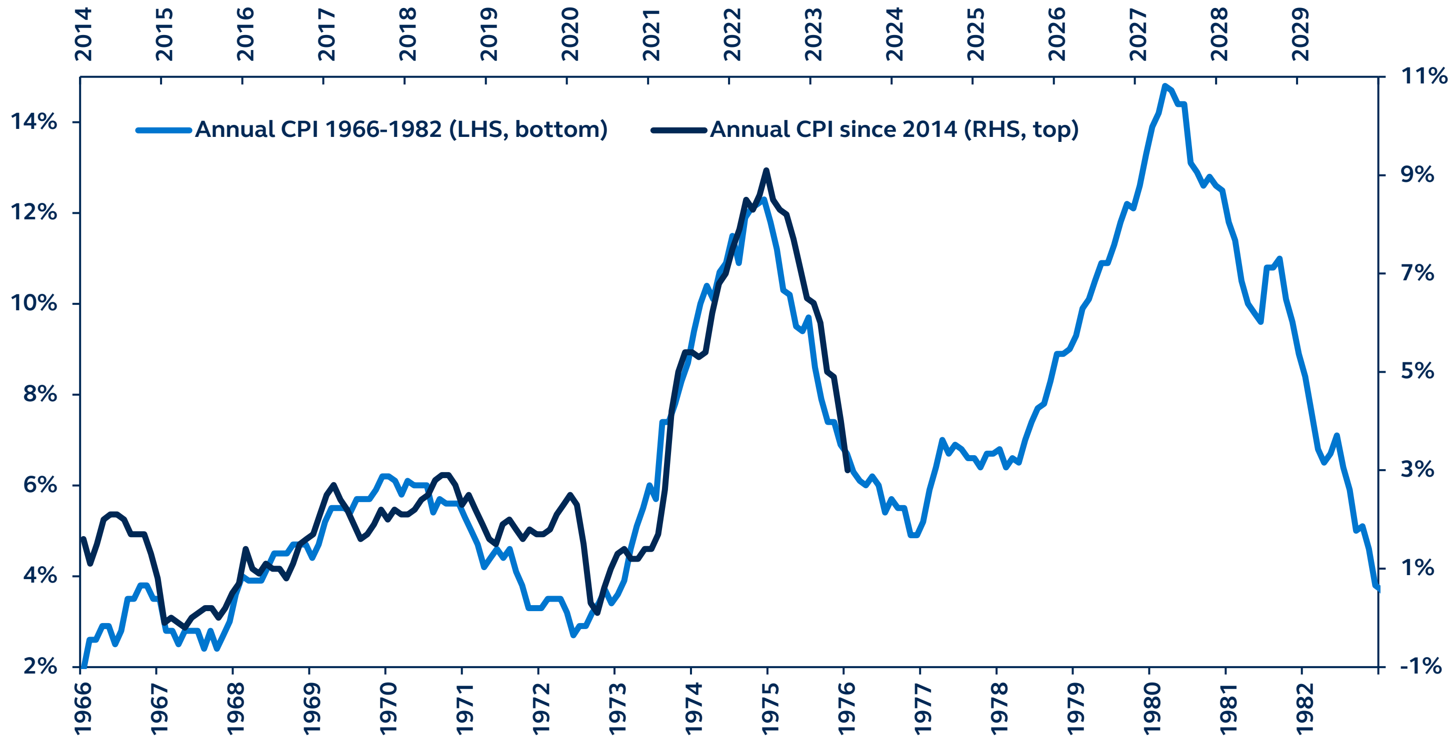
The experience of the 1970s has taught central bankers to take inflation risks seriously. Lowering interest rates before the Fed is confident that inflation is on a sustainable path back to 2% would threaten to undo all its hard work to date, ultimately requiring more aggressive hikes next year.

Indeed, the only scenario that would justify early rate cuts is a desperately struggling economy accompanied by a sharp increase in job losses or a financial crisis—neither a particularly favorable backdrop for investors.

The risks associated with premature rate cuts are significant. The Fed would need to see a desperately struggling economy or a financial crisis to justify rate cuts this year.

Historical inflation comparison

Consumer Price Index (CPI)



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

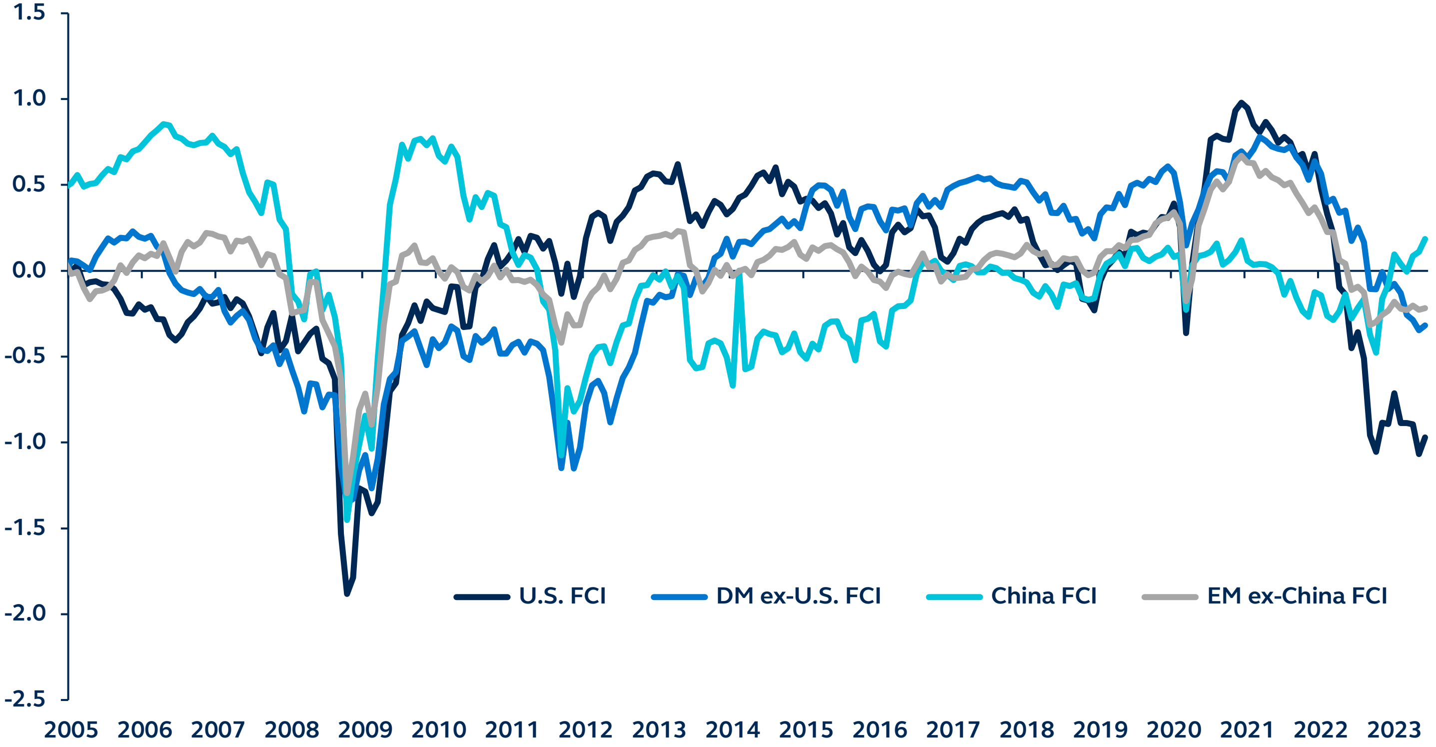
However, optimistic growth expectations need to be questioned now that risks have swung towards higher terminal policy rates. As a result, market sentiment is beginning to look vulnerable, with DM financial conditions likely to tighten in the second half of 2023.

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.

Equities

Global equity valuations are becoming more stretched

Global equities delivered a strong performance in 2Q, helped by earnings resilience and a spectacular tech rally. While fading hopes of China's recovery have erased all their equity gains since January, the rest of emerging markets held up well. European equities lost steam as 2Q progressed, in line with China's growth weakness. Japanese equities rallied on the back of reflation momentum and currency tailwinds. U.S. indices performed well but had a narrow market breadth, driven almost entirely by companies associated with AI excitement.

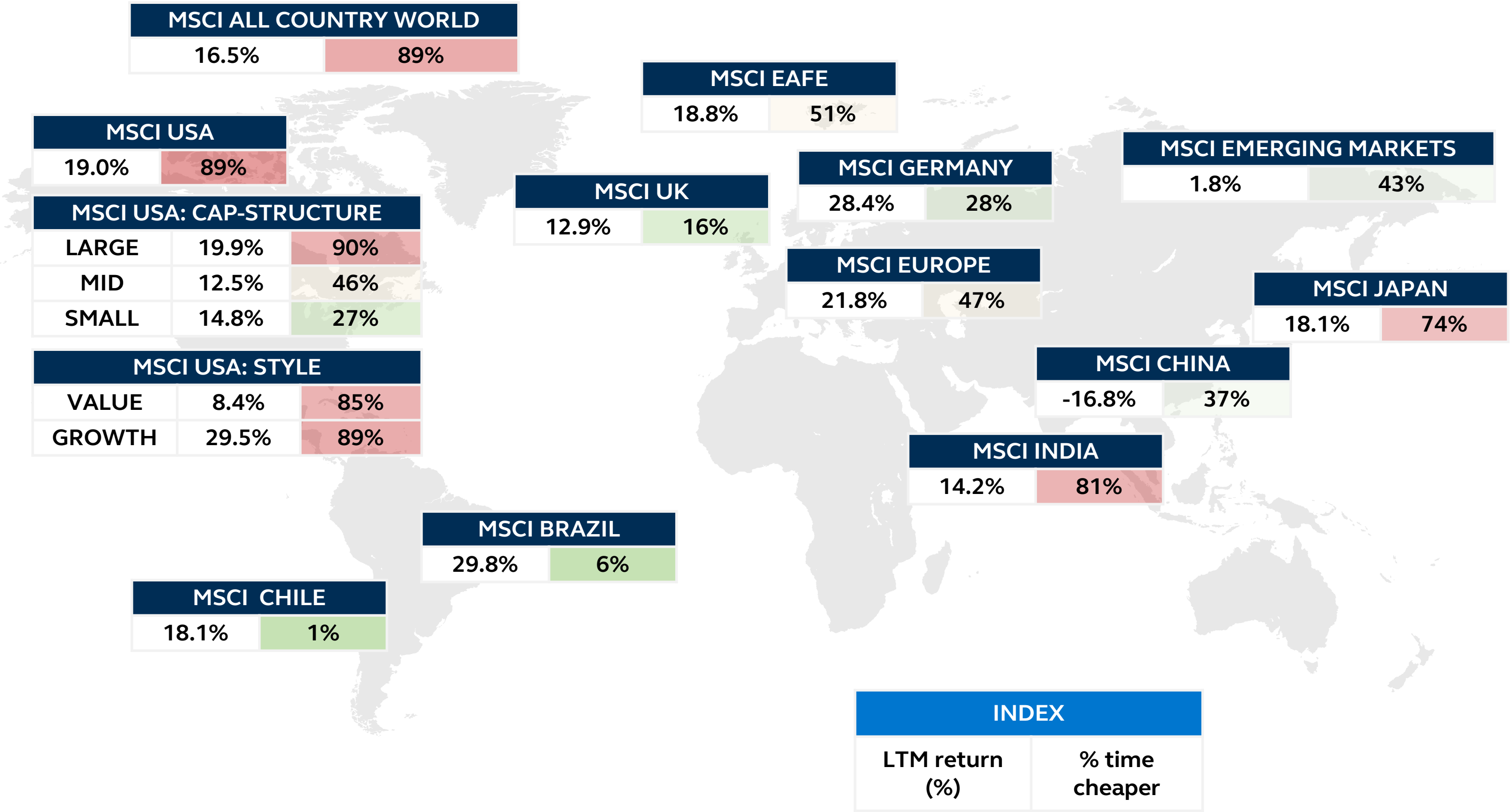
As a result, global valuations became more stretched. U.S. large-cap and growth remained the most expensive markets, while valuations in most other regions remained around or below their historical medians. Europe has become cheaper, while Japan has become more expensive, with valuations well above their historical median.

EM valuations are slightly cheaper than the historical median, but regional divergence remains significant. India's valuations are stretched and have been cheaper 81% of the time. By contrast, and despite a strong rally in 2Q, Latin America still looks attractive, with Brazil having been cheaper only 6% of the time.

After 2Q's rally, global equity valuations have become more stretched. The U.S. remains the most expensive market, while Latin America has rarely been cheaper.

Global equity returns and valuations

Last twelve months returns and % times cheaper, MSCI indices



Source: FactSet, Bloomberg, MSCI, Principal Asset Allocation. LTM (last twelve months) returns are total return and in USD terms. % Time Cheaper is relative to PAA Equity Composite Valuation history. PAA Equity Composite Valuation is a calculated measure, comprised of 60% price-to-earnings, 20% price-to-book and 20% to dividend yield. Composite started in 2003. EAFE is Europe, Australasia, Far East. See disclosures for index descriptions. Data as of June 30, 2023.

U.S. equities defy rate hikes and recession concerns

The S&P 500 entered a new bull market during 2Q, shrugging off concerns of recession and restrictive monetary policy. This has re-rated equities to higher valuation multiples, appearing stretched and unreflective of the potential earnings risks ahead.

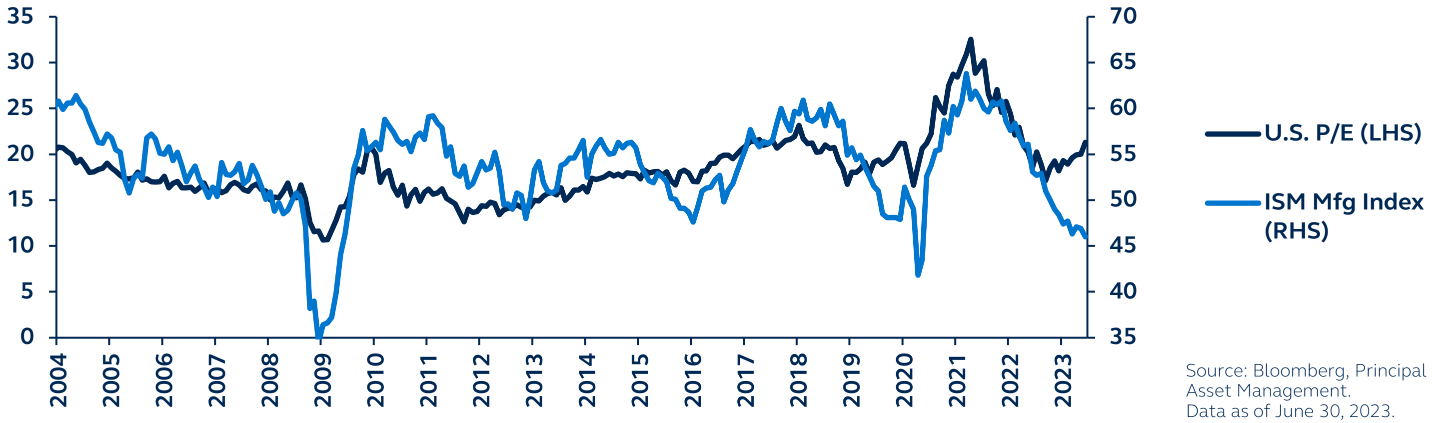
With the foundations of an economic slowdown gradually falling into place and further Fed tightening still to come, earnings headwinds are likely to intensify. Cost cutting has preserved margins so far but, as inflation slows nominal growth, revenues are also placed at risk. Stretched valuations imply that U.S. equities are particularly vulnerable to earnings disappointment.

Yet, with recession likely to be short and shallow, any market pullback will also likely be short and shallow. Defaults should not spike significantly, while earnings decline should neither be deep nor sustained. As a result, a return to September 2022 lows for the S&P 500 is unlikely and the window will be small for increasing exposure to U.S. equities at attractive valuations.

Investors should remain nimble and ready to deploy available cash towards U.S. equities as the economy and earnings approach their troughs.

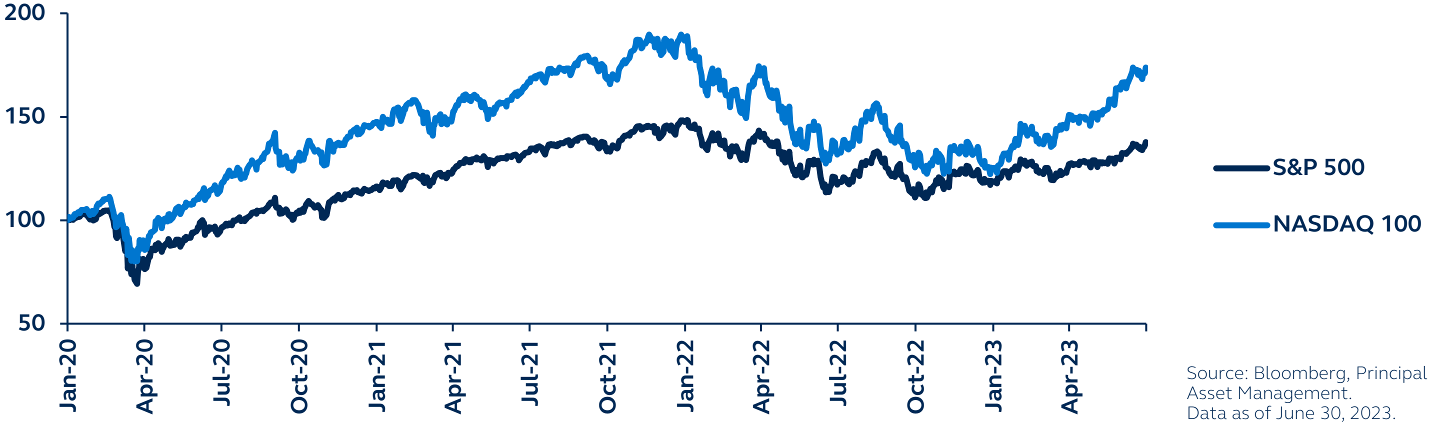
While U.S. equities are vulnerable to earnings disappointment, the short and shallow nature of recession implies any pullback will be equally short and shallow.

S&P 500 price to earnings ratio versus ISM Manufacturing Index
2004–present



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

S&P 500 versus NASDAQ 100 performance
Rebased to 100 at January 1, 2020



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

Bad breadth and narrow market leadership

While the S&P 500 has been on an impressive run, the rally has been driven by the explosive performance of only a handful of mega-cap stocks across the technology, consumer discretionary, and communications sectors—and all by companies firmly associated with AI excitement.

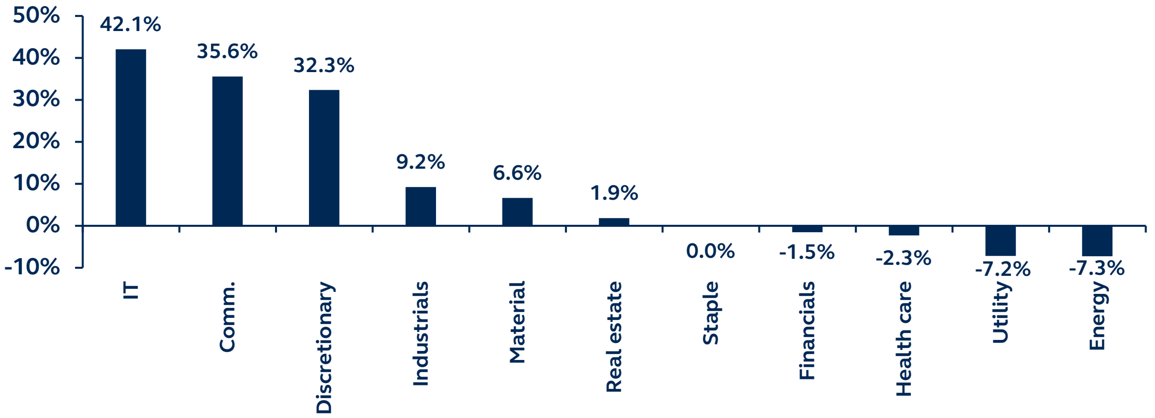
- Until mid-June, the five best-performing stocks in the S&P 500 had contributed 60% to returns this year (compared to an average positive contribution of 35% over the past decade).
- The market-weighted S&P 500 is outperforming the equal-weighted S&P 500 by 11%—the largest year-to-date outperformance since records began in 1990.
- Even more astounding, the outperformance of the S&P 500 Technology sector over the broader index is now higher than during the dot-com era.

Such narrow market concentration is a potential concern for investors. Against a backdrop of further monetary tightening and economic slowdown, a broadening of the rally looks challenging. From here, if the few stocks driving the rally fail to deliver on elevated earnings expectations, the broad market will likely be exposed to a pullback.

The narrowness of the U.S. rally means that diversification via non-U.S. equities, which have lower tech concentration and less correlated to the AI excitement, may be warranted.

S&P 500 sector YTD returns

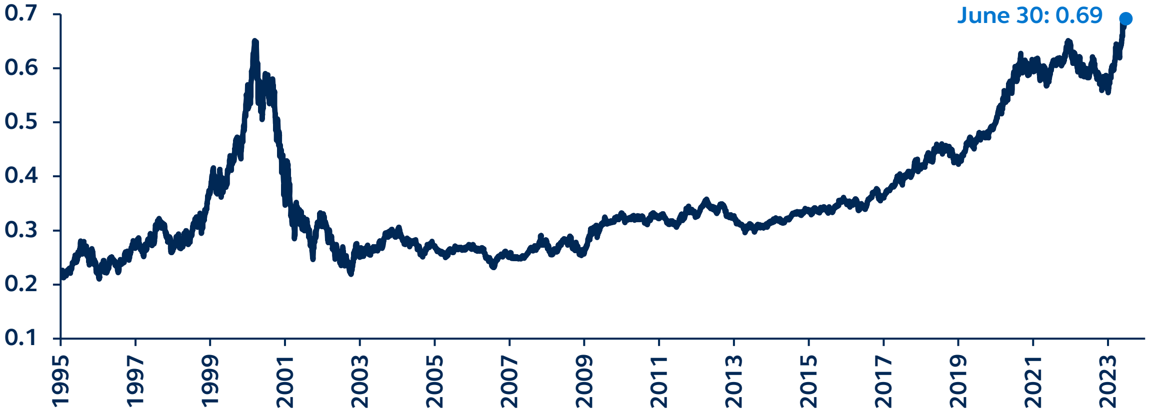
Total return, January 2023–present



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

S&P Technology price relative to S&P 500 price

1995–present



Source: S&P Dow Jones, Bloomberg, Principal Asset Allocation.
Data as of June 30, 2023.

Principal Asset Management℠

Looking at EM equities through a non-China lens

Investors had hoped China's post-COVID economy would resemble the post-reopening strength of the U.S. and Europe. However, the Chinese economy hit a wall in 2Q as recovery momentum lost significant steam. Aggregate financing activity in China also disappointed after an initial surge.

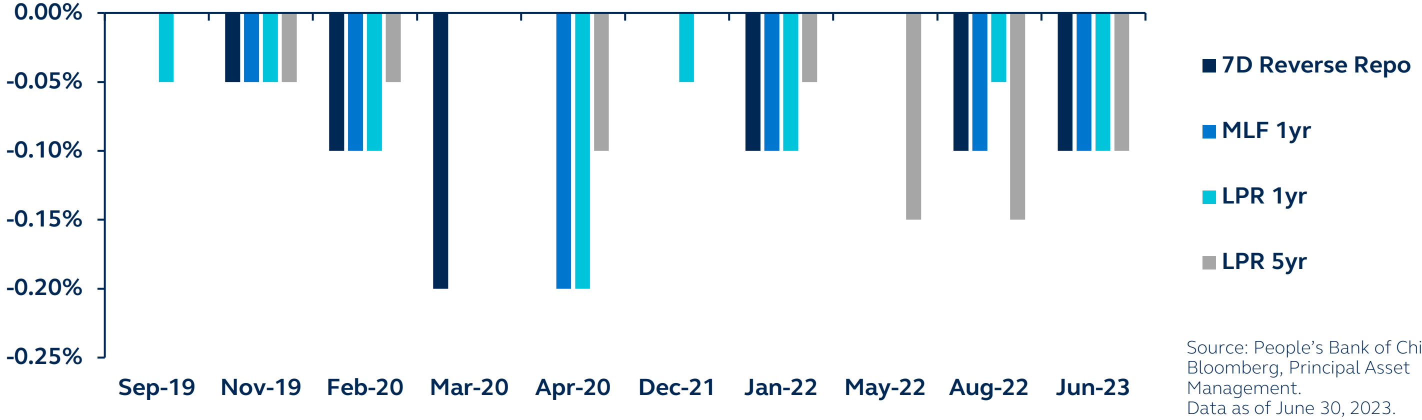
With economic weakness widely recognized by policymakers, stimulative measures are likely to follow. The central bank has already reduced several policy rates, yet the magnitude of the moves has fallen short of market expectations. Modest stimulus may be sufficient to help ensure China hits its 5% GDP growth target for 2023, but more would be needed to trigger meaningful positive spillover effects to the rest of EM and other major trading partners.

Nonetheless, there are some clear positives within EM Asia and Latin America beyond China. Emerging markets ex-China economies have generally proved stronger than DM economies, inflation is normalizing faster, and several EM central banks are primed to start cutting rates in the near future. In Latin America, for example, fundamentals are improving just as valuations are running below their historical averages—an attractive investment combination.

China's disappointing recovery means policymakers could roll out stimulus, but it may not be big enough to benefit wider EM. However, there are positives within EM ex-China.

People's Bank of China historical rate cuts

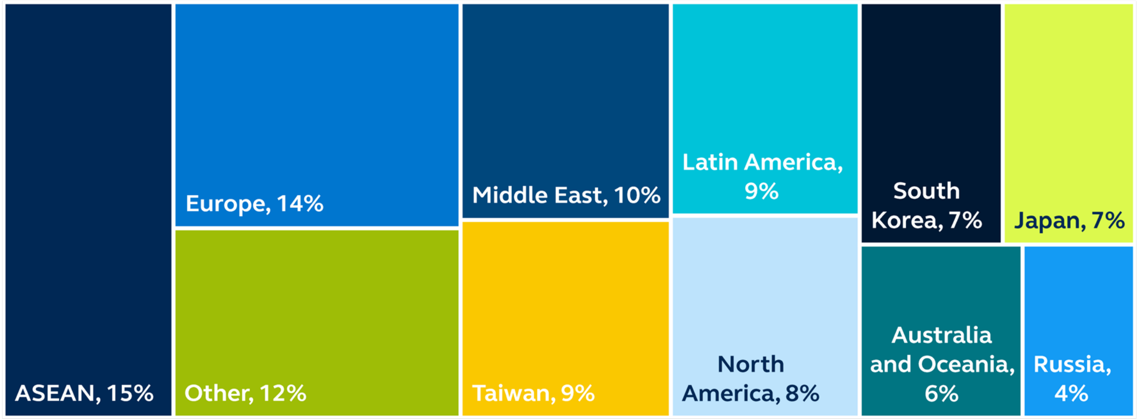
September 2019–present



Source: People's Bank of China, Bloomberg, Principal Asset Management. Data as of June 30, 2023.

China imports

Share of key import regions, calendar year 2022



Source: Bloomberg, Principal Asset Management. Data as of December 31, 2022.

Europe's and (especially) Japan's reversal in fortunes

The euro area and Japan have enjoyed a reversal in fortunes this year, attracting significant inflows following years of investor disinterest. Yet, while the outlook for Japanese equities in 2H 2023 looks bright, Europe's outlook is less promising.

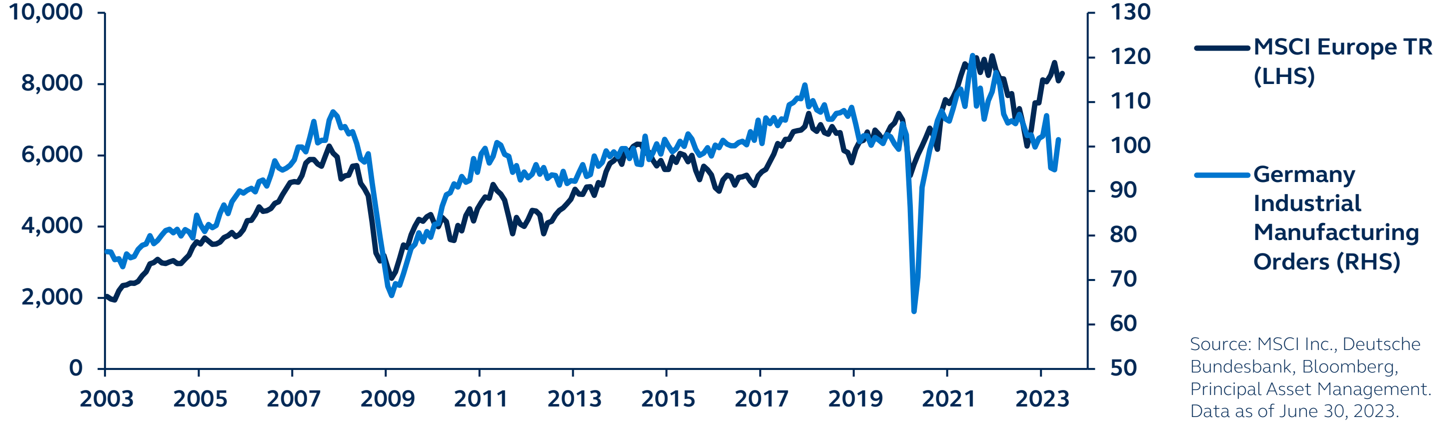
Positive expectations for China's reopening had previously lifted European equities, but China's recovery has lost momentum and is potentially becoming a drag for Europe. European inflation, too, remains a significant problem, and the ECB's hawkish response will weigh on European growth. However, the ECB's relative hawkishness is bolstering the euro, adding to returns for USD-based investors, and justifying a neutral portfolio weighting.

Japan's economy is experiencing a revival, with inflation and wage growth returning to healthier levels. Following its central bank peers, the Bank of Japan is widely expected to shift away from ultra-easy monetary policy in response to higher inflation. Potential strengthening in the Japanese yen will likely attract global investor attention, adding to returns for USD-based investors. Japan also provides an attractive opportunity for diversification, given that its economic cycle appears desynchronized from other DMs.

Japan is enjoying an economic revival. Healthier inflation prospects will likely trigger BoJ tightening, bolstering the yen and adding to returns for USD based investors.

MSCI Europe and Germany industrial manufacturing orders

Level, 2003–present



Source: MSCI Inc., Deutsche Bundesbank, Bloomberg, Principal Asset Management. Data as of June 30, 2023.

Cumulative foreign flows into Japan equities

Billions, 2012–present

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

Fixed income

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 stable assets relative to high yield credit and even equities.

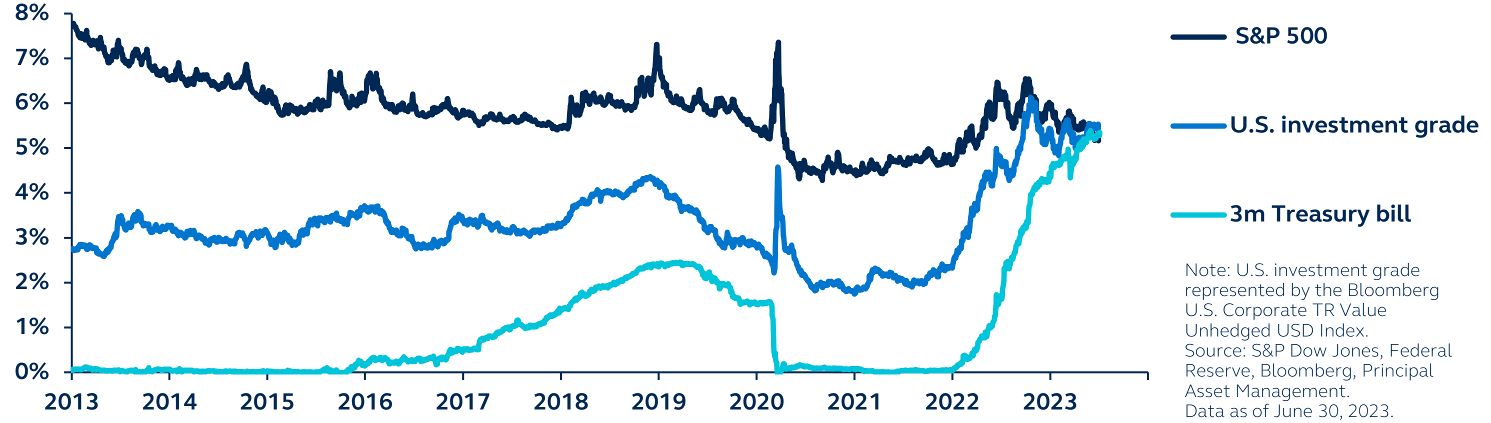
While this performance seems justified by current economic resilience, it conflicts with forward-looking indicators suggestive of future economic deterioration. As the lagged effects of central bank tightening begin to take their toll on credit conditions and the economy slows, recent buoyancy in equities 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 stable income streams and adding diversification via bonds will 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 stable fixed income streams.

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

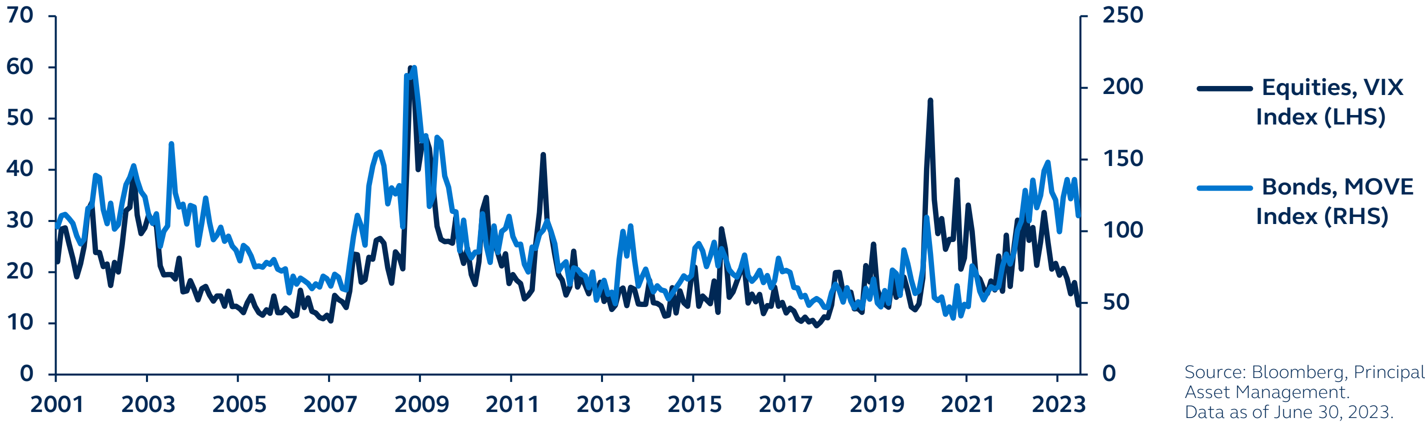
S&P 500 12m forward earnings yield, investment grade bond yield-to-worst, and 3-month Treasury bills yield



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.

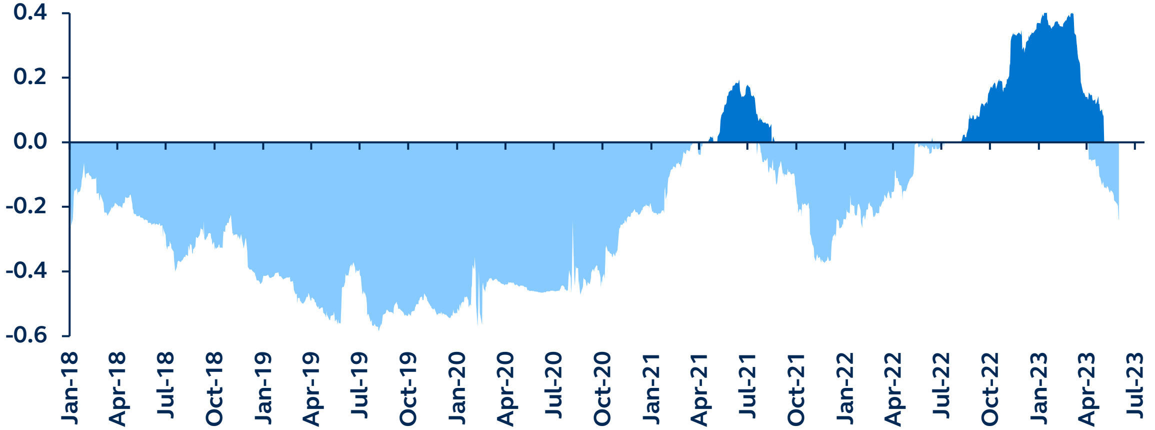
10-year Treasury yield and the ISM Manufacturing Index

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.

Principal Asset Management℠

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.

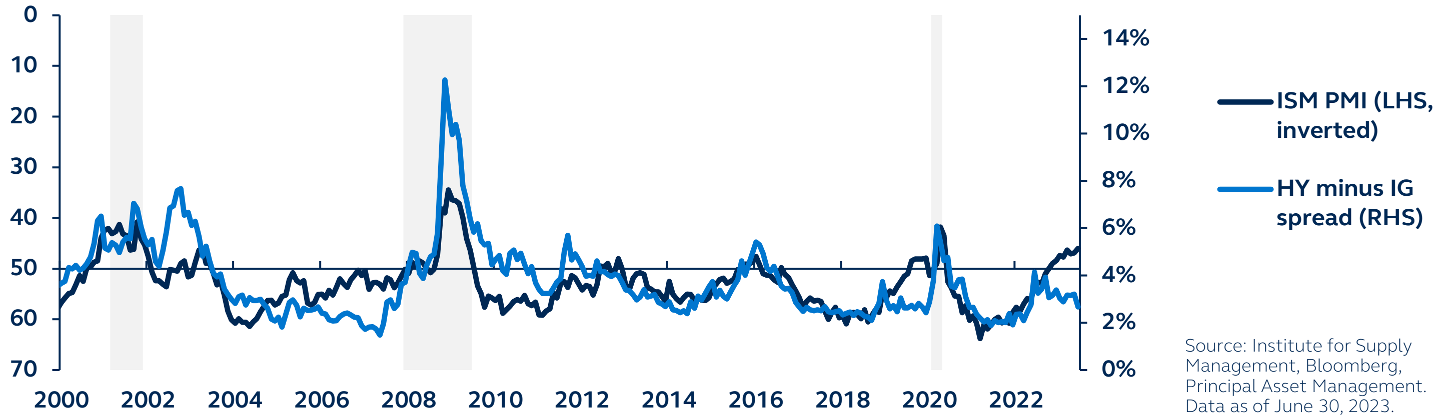
Historically, high-quality credit assets tend to outperform during economic downturns, and during recessions, the credit spreads between U.S. high yield and investment grade bonds tend to widen the most. While the upcoming recession will likely be mild, falling PMI activity indicators and tightening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

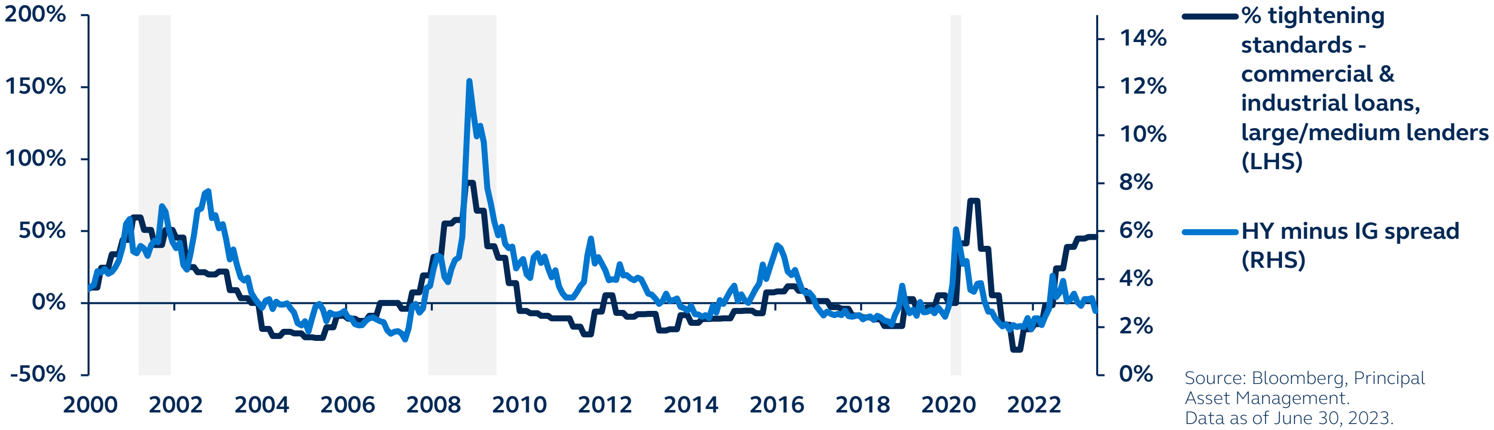
U.S. recessions are shaded, 2000–present



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.

High yield: Robust amidst economic weakness

High yield bonds were a bright spot in fixed income in 2Q. Spreads have tightened significantly since their peak in March and are now pricing in a soft-landing for the U.S. economy. Historically, periods where the asset class experienced tighter spreads than it is currently were characterized by economic expansions or a dovish Fed.

Nonetheless, with total yields an attractive 8.5% at the end of 2Q, high yield investors would have a decent cushion if spreads were to unwind during the coming economic downturn. Overall, the asset class is better positioned now compared to previous economic down cycles:

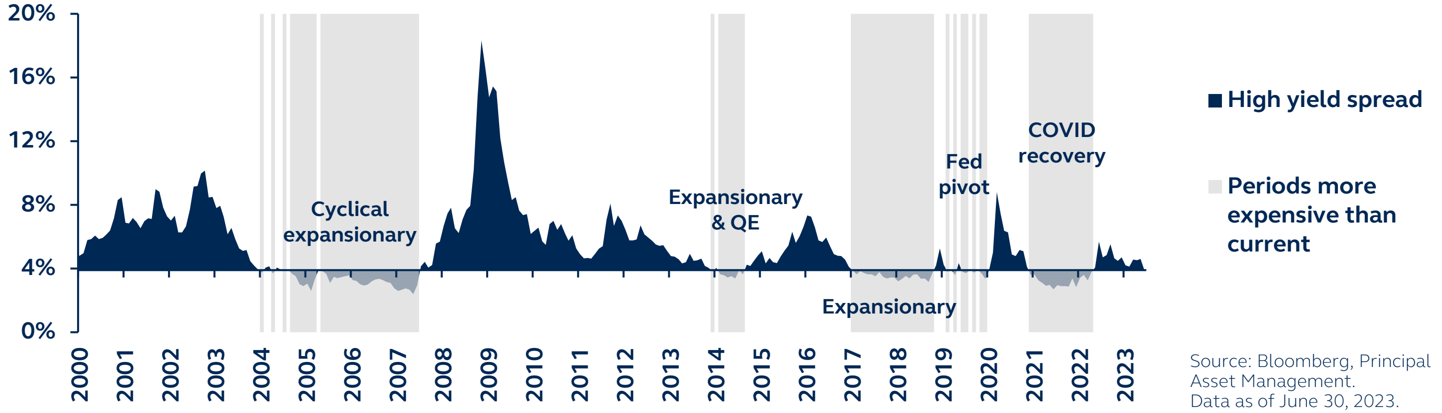
- The recession is expected to be mild, implying that the default spike could be lower.
- The credit quality of the high yield index today is well above its historical average.
- Near-term refinancing pressure is low. The maturity wall remains low in 2023 and will likely only build in 2024-2025.

If U.S. Treasury yields fall substantially during recession, the shorter duration profile of high yield would put the asset class at a disadvantage relative to high-quality bonds. However, the current attractive carry is clearly valuable to income-seeking investors.

High yield is well positioned given the mild recession outlook, its better credit quality, and low near-term maturity pressure. Despite rich valuations, carry is very attractive.

Historical high yield spreads

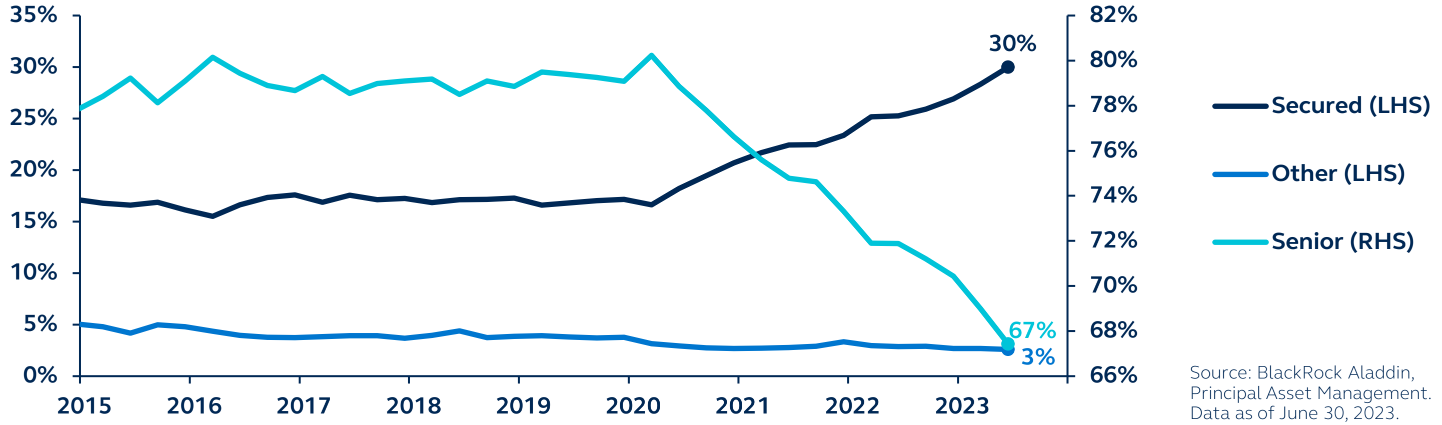
Axis crosses at June 2023 value, 2000–present



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

High yield quality composition

Bloomberg U.S. Corporate HY 2% Issuer Capped Index, 2015–present



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

EM debt: Improved outlook but with lingering risks

Given its cyclical nature, emerging market debt (EMD) typically performs poorly in economic downturns and financial crises. However, there are a few positive catalysts for EMD in today's macro environment.

A mild U.S. recession outlook and desynchronized economic cycles suggest EMD may escape the downturn relatively unscathed. Economic strength and resilience in other parts of the world should help support risk sentiment and prevent a significant correction in cyclical assets.

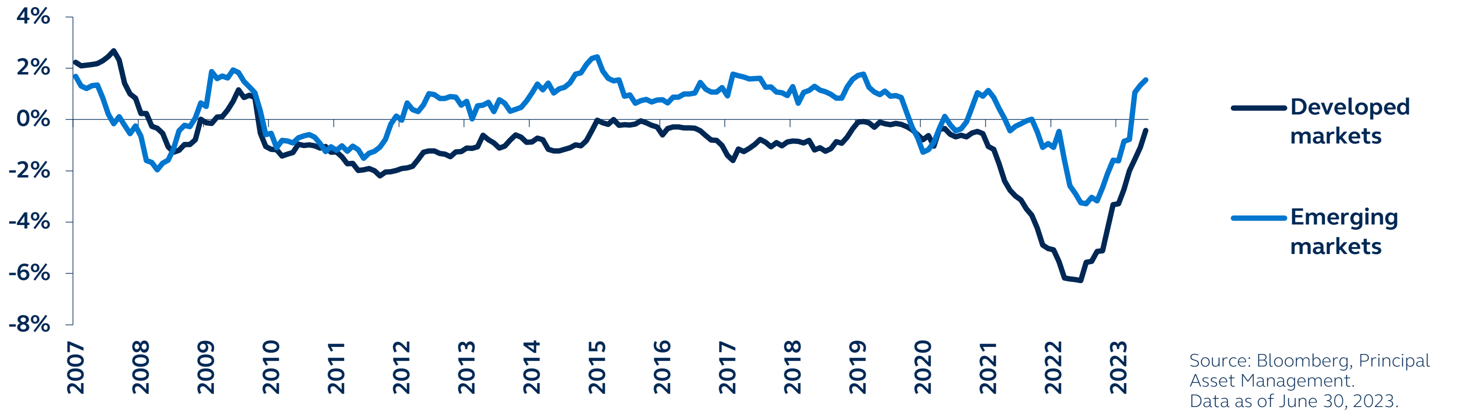
Many emerging market central banks were ahead of their developed market peers in hiking rates, successfully reining in inflation sooner. This position has allowed them to shift to a more dovish stance, with many considering rate cuts from very high levels. Such a policy change would likely provide attractive yields and enhanced returns on local currency bonds. In fact, GDP-weighted real policy rates for emerging markets are above zero, while developed markets' rates remain in negative territory. In a steadier/weaker USD environment, EM currencies should begin to regain ground.

Of course, despite the relative attractiveness, EMD is not risk-free. A deep liquidity crisis or deeper recession in the U.S. could significantly impact EMD.

Emerging market debt could escape mostly unscathed in a mild U.S. recession. Faster inflation normalization in EM is allowing their central banks to start shifting to rate cuts.

GDP-weighted real policy rates

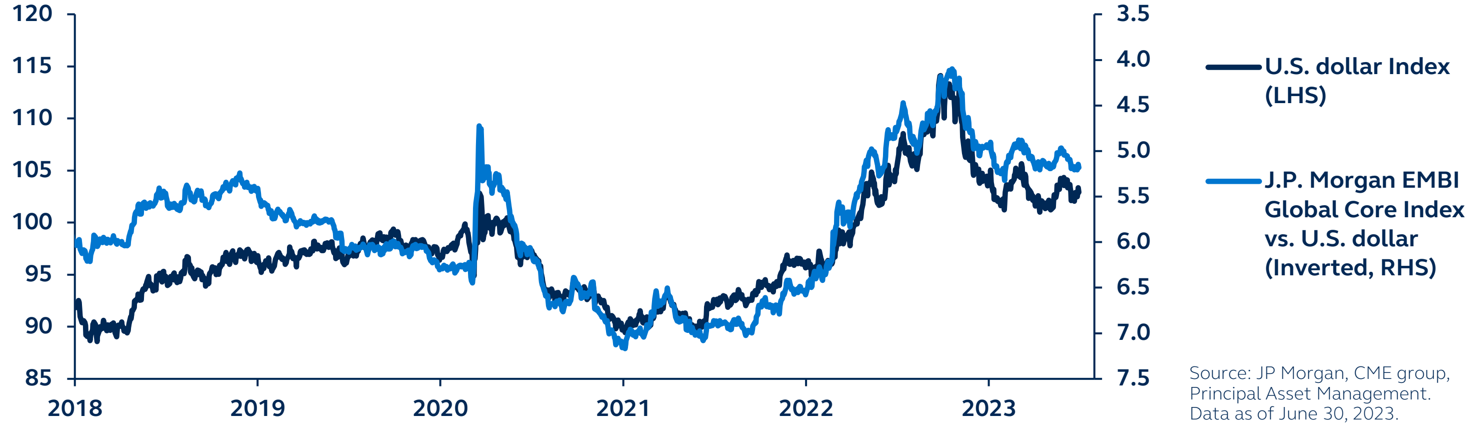
Policy rates minus CPI YoY, GDP weighted, 2007–present



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

Emerging market debt versus U.S. dollar

2018–present



Source: JP Morgan, CME group, Principal Asset Management.
Data as of June 30, 2023.

Alternatives

Commodities: Short-term pain but long-term gain

Except for agriculture, which has been benefiting from the hot summer outlook in the Northern Hemisphere, broad commodities have struggled this year. The prospect of a global economic slowdown will likely weigh further on commodity performance over the coming quarters.

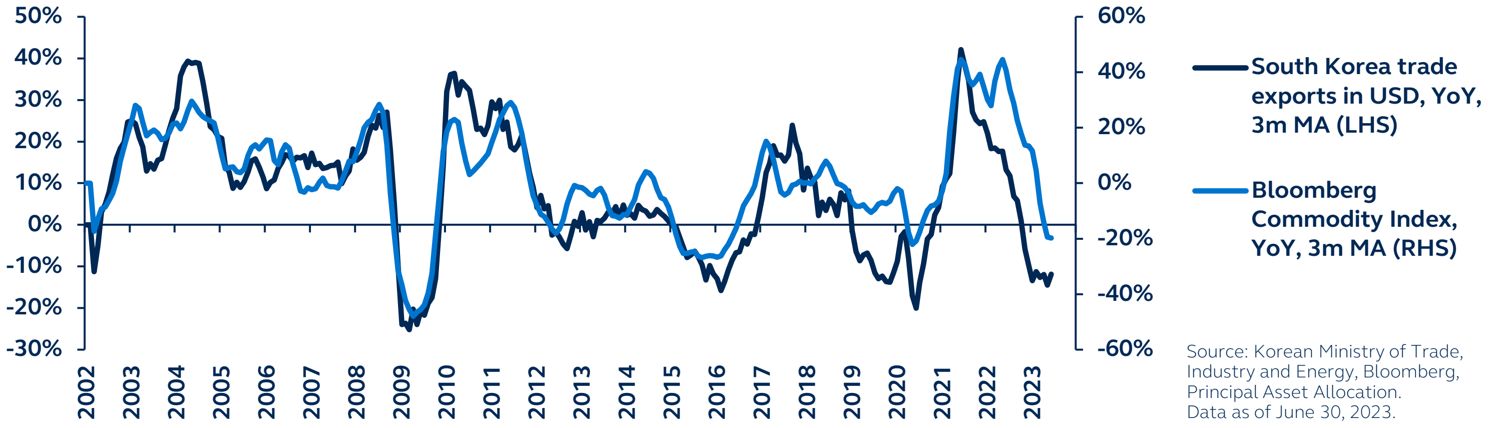
With China's reopening losing significant momentum and policy stimulus underwhelming expectations, boosted commodity demand from Asia seems unlikely. In the U.S., despite a seemingly resilient economy, the foundations for a meaningful slowdown later this year are in place. So, while segments of the global economy look stronger, they will not be able to offset the reduced commodity demand from the world's two largest economies.

The short-term outlook for natural resources has also declined. The equity beta component embedded in natural resources may result in further downside if the weakening economic backdrop weighs on the broader equity market. The long-term outlook, however, remains more constructive. Limited capital expenditure in fossil fuels capacity in recent years implies that commodities will likely remain in a long-term state of structural supply deficits that will support commodity prices.

The short-term commodity outlook is fairly weak as China growth concerns add to U.S. growth fears. By contrast, long-term trends are clearer and more constructive.

Bloomberg Commodities Index and South Korean trade exports in U.S. dollars

2002–present



Source: Korean Ministry of Trade, Industry and Energy, Bloomberg, Principal Asset Allocation. Data as of June 30, 2023.

S&P 500 energy capital expenditure

Adjusted for U.S. nominal GDP, 1993–present

Source: S&P Dow Jones, Macroeconomic Advisers, Bloomberg, Principal Asset Management. Data as of June 30, 2023.

Infrastructure's crucial defensive role in portfolios

A continued constructive view of listed infrastructure conveys its diversification benefits in this macro environment and its fundamental strengths and defensive characteristics.

Listed infrastructure is one of the few asset classes that can potentially outperform in a slowing growth, sticky inflation environment. Indeed, listed infrastructure has historically delivered meaningfully higher returns than global equities during periods of elevated inflation. For investors, although inflation has decelerated fairly rapidly from its peak, the next phase of bringing inflation down toward 2% is likely to be more challenging.

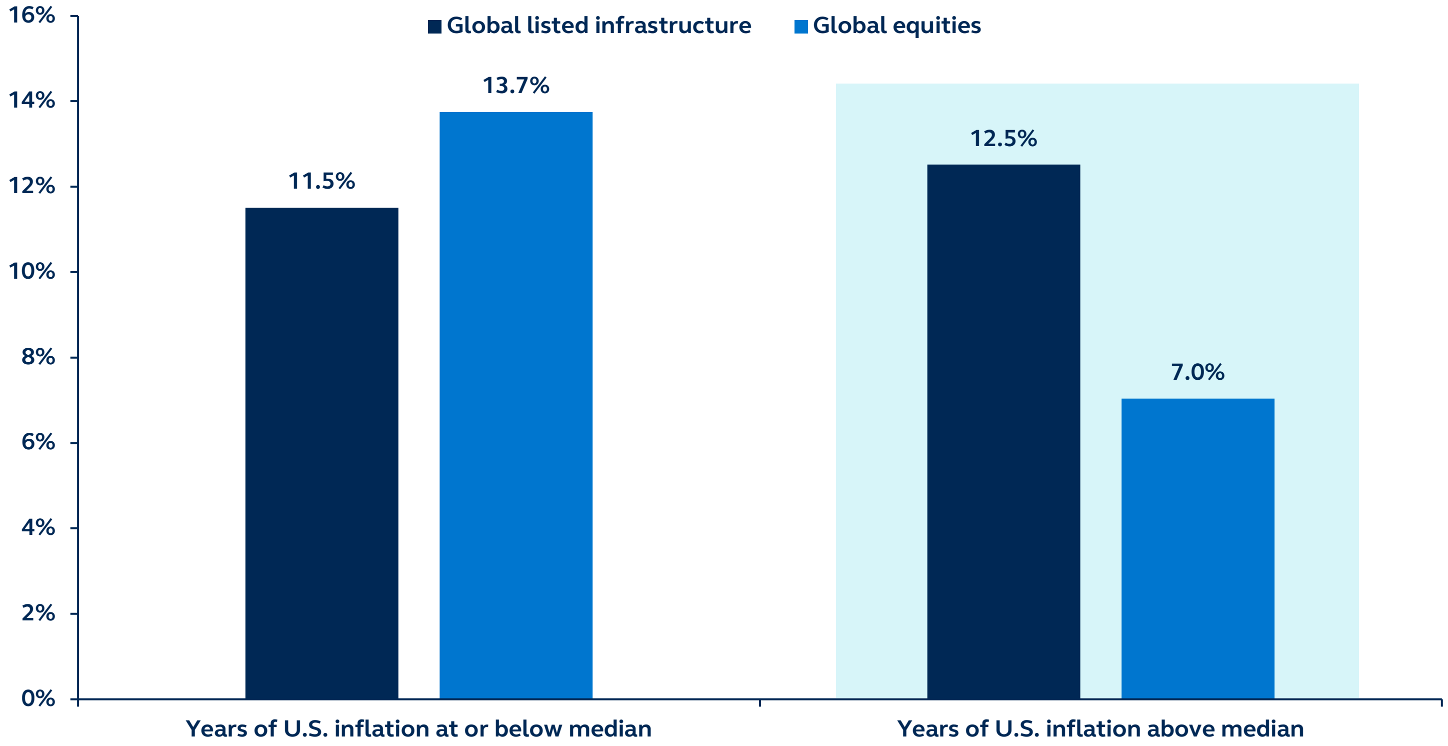
While infrastructure may not outperform if the U.S. economy achieves a soft landing and inflation declines quickly, its equity beta means infrastructure should not significantly underperform global equities.

From a portfolio perspective, infrastructure investments can offer more stability, typically having predictable cash flows associated with the long-lived assets. They also provide exposure to the global theme of de-carbonization, which presents a multi-decade tailwind for utilities and renewable infrastructure companies.

Infrastructure continues to offer important inflation mitigation and a more stable income stream.

Listed infrastructure versus global equities in differing inflation environments

2003–2022



Note: Global equities is represented by MSCI All Country World Index. Global listed Infrastructure is represented by the MSCI ACWI Utilities Index from 2003 through 2006, a 50/50 blend of MSCI ACWI Utilities Index and the Alerian MLP Index from 2007 through 2015, and the FTSE Global Core Infrastructure 50/50 Index thereafter. 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.
Source: U.S. Bureau of Labor Statistics, CPI ex-food & energy, FactSet, Principal Asset Management. Data as of December 31, 2022.

REITs are vulnerable to recent banking sector strains

REITs continue to be challenged, with office REITs, in particular, still struggling in the face of sluggish return-to-office trends and the tightening credit environment.

Recent events in the U.S. regional banking sector have broadly resulted in tighter lending standards, wider credit spreads, and lower credit availability for real estate. Scarce and expensive debt is set to continue pressuring transaction volumes, likely driving a further pullback from commercial real estate —and therefore REITs—in the coming months.

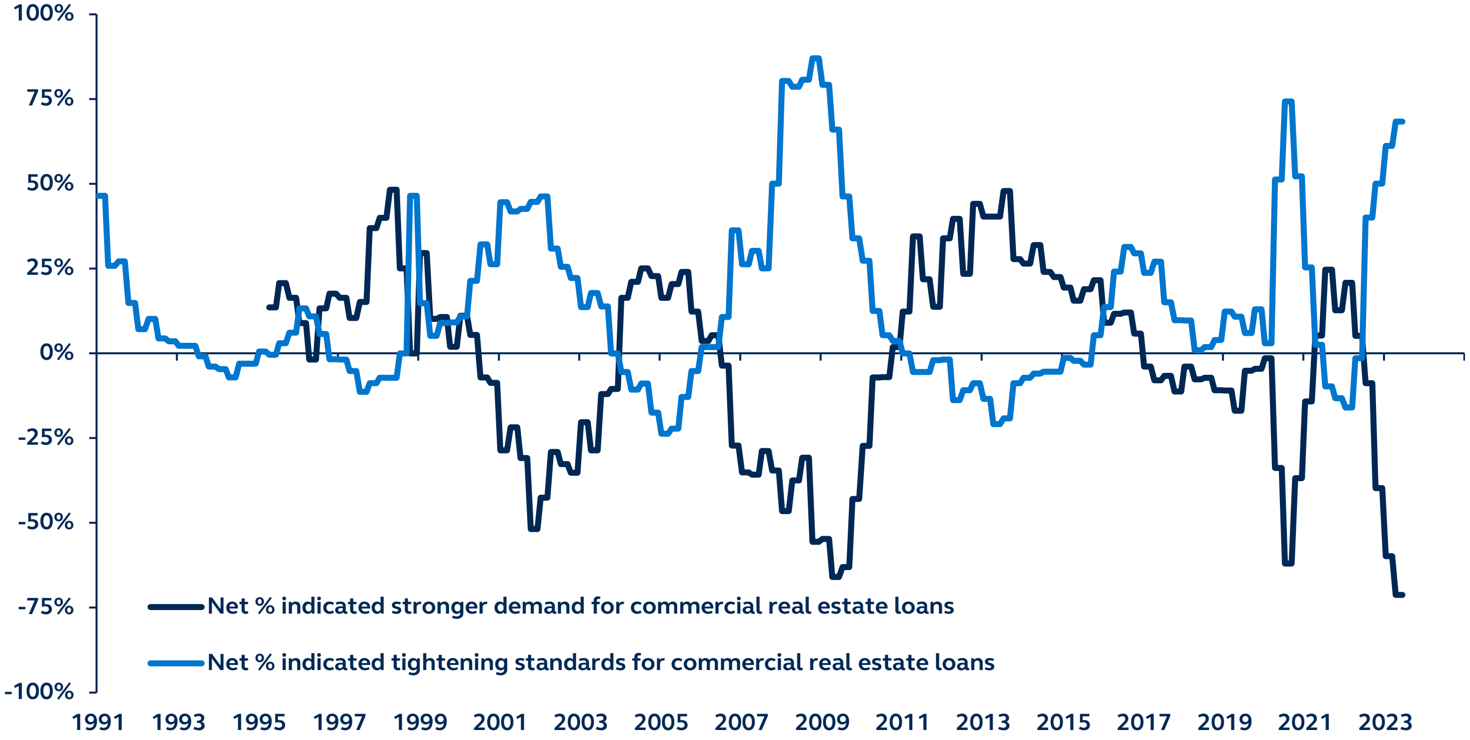
However, REITs are likely approaching the bottom of their cycle. Traditional office space accounts for only 3% of the overall U.S. REIT market. At the same time, other non-traditional sectors, such as single-family rental, self-storage, and wireless towers, enjoy structural demand drivers and provide earnings resiliency. After some further adjustments, REIT valuations will likely start to look attractive again.

Furthermore, as economic growth weakens and bond yields fall, REITs would typically perform well as a traditionally defensive, low-volatility, rate-sensitive sector. As such, once valuations have reset, deteriorating economic fundamentals may signal a more positive story for REITs.

REITs are due for a further pullback. Yet, once valuations have reset, deteriorating economic fundamentals may signal a more positive story for REITs.

U.S. bank responses regarding commercial real estate loans

Senior Loan Officer Opinion Survey on Bank Lending Practices, 1991–present



Note: Data since 4Q 2013 is average of construction and land development, nonfarm nonresidential and multifamily.
Source: Federal Reserve, Principal Asset Management. Data as of June 30, 2023.

Investment implications

Asset allocation	Investment preference: Less	< <	Neutral	> >	More
Equities		●			
Fixed income				●	
Alternatives			● ←	○	
Equities					
U.S.		●			
Large-cap				●	
Mid-cap			●		
Small-cap		●			
Ex-U.S.			●		
Europe			●		
UK		● ←	○		
Japan		○ →	○ →	●	
Developed Asia Pacific ex-Japan			●		
Emerging markets			● ←	○	
Fixed income					
U.S.			●		
Treasurys					●
Mortgages				●	
Investment grade corporates				●	
High yield/Senior loans		○ →	●		
Preferreds (debt & equity)		● ←	○ ←	○	
TIPS			●		
Ex-U.S.			○ →	●	
Developed market sovereigns			●		
Developed market credit			●		
Emerging market local currency			○ →	●	
Emerging market hard currency			●		
Alternatives					
Commodities		● ←	○		
Natural resources		● ←	○		
Infrastructure				●	
REITs		●			
Hedge funds			● ←	○	

Viewpoints reflect a 12-month horizon

○→● indicates a change in preference from the previous quarter (light blue) to the current quarter (darker blue).

Diversified asset allocation: Underweight equities, overweight bonds and neutral alternatives.

Equities:

In recognition of the economic risks, our equities positioning remains at underweight. We prefer other markets over the U.S. Still, the shallow nature of the expected U.S. recession means that a significant and sustained pullback is unlikely, and investors should look for the opportunity to increase exposure once there has been some correction in current valuations. Within the U.S., large-cap equities should continue to benefit from both cyclical and secular fundamental tailwinds, although there is a risk of some pullback if elevated earnings expectations for tech firms prove overly optimistic. Within developed markets ex-U.S., we increase our exposure to Japan due to the economic revival and likely shift in central bank policy. Within emerging markets, China's recovery has proved disappointing, but there are substantial opportunities in other regions.

Fixed income:

Our fixed income positioning remains at overweight, with bonds likely providing more stability during the coming economic slowdown. Within the U.S., we keep our overweight exposure to U.S. Treasurys, mortgages, and investment grade, recognizing that these fixed income assets' longer-duration, high-quality profile should outperform as the economy slows. We move high yield to neutral, acknowledging that while spreads will likely widen as the economy slows, elevated yields may provide a decent cushion if spreads unwind. In addition, high yield credit quality is well above its historical average. Local currency emerging market debt moves to overweight as high real yields, central bank rate cuts, and likely further dollar weakness should combine to enhance returns.

Alternatives:

Alternatives shift to neutral as, although they provide important diversification benefits, the outlook for specific segments has deteriorated. We shift our commodities and natural resources positions to underweight, concerned by the coming global growth slowdown and likely equity market downturn. REITs remain at underweight, given continued pressures on the real estate sector, particularly from the office space. We shift hedge funds to neutral as volatility remains very subdued. By contrast, we maintain our overweight to infrastructure, encouraged by its inflation-protection characteristics, stability of cash flows, and exposure to the structural de-carbonization trend.

Source: Principal Asset Allocation. Alternatives asset class include commodities, natural resources, infrastructure, REITs, and hedge funds. Allocations across the investment outlook can be proportionately adjusted so magnitudes across categories do not have to net to neutral.
Data as of June 30, 2023.

INVESTMENT IMPLICATIONS

Equities

Reduce risk appetite and focus on U.S. large-cap and quality factor.

Position toward certainty:

- Exposure to quality within equities can potentially offer risk mitigation during pullbacks.
- Attractive international valuations suggest opportunities outside the U.S.
- U.S. large-cap offers stronger geographical revenue exposure and more attractive valuations.

How to implement:

- Large-cap U.S. strategies
- Quality-biased active managers
- Well-diversified and active international managers

Fixed income

Increase exposure to high-quality credit.

High-quality, core fixed income:

- Core fixed income to hide out in as recession risk rises.
- Recommend increasing duration bias across the asset class.

How to implement:

- IG credit heavy core fixed income for stability
- Agency MBS strategies

Alternatives

Pursue less correlated real asset exposures.

Real assets:

- Real return-focused strategies gain attractiveness when nominal growth slows.
- Infrastructure offers more stable cash flows with potentially attractive yield.
- Real assets can help mitigate inflation risk.

How to implement:

- Diversified real asset strategies (Infrastructure, natural resources)
- Private real estate markets

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 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 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®).

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.

INDEX DESCRIPTIONS

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.

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.

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.

Important Information

This material covers general information only and does not take account of any investor's investment objectives or financial situation and should not be construed as specific investment advice, a recommendation, or be relied on in any way as a guarantee, promise, forecast or prediction of future events regarding an investment or the markets in general. The opinions and predictions expressed are subject to change without prior notice. The information presented has been derived from sources believed to be accurate; however, we do not independently verify or guarantee its accuracy or validity. Any reference to a specific investment or security does not constitute a recommendation to buy, sell, or hold such investment or security, nor an indication that the investment manager or its affiliates has recommended a specific security for any client account. Subject to any contrary provisions of applicable law, the investment manager and its affiliates, and their officers, directors, employees, agents, disclaim any express or implied warranty of reliability or accuracy and any responsibility arising in any way (including by reason of negligence) for errors or omissions in the information or data provided.

This material may contain 'forward-looking' information that is not purely historical in nature and may include, among other things, projections and forecasts. There is no guarantee that any forecasts made will come to pass. Reliance upon information in this material is at the sole discretion of the reader.

This material is not intended for distribution to or use by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.

This document is intended for use in:

- The **United States** by Principal Global Investors, LLC, which is regulated by the U.S. Securities and Exchange Commission.
- **Europe** by Principal Global Investors (Ireland) Limited, 70 Sir John Rogerson's Quay, Dublin 2, D02 R296, Ireland. Principal Global Investors (Ireland) Limited is regulated by the Central Bank of Ireland.Clients that do not directly contact with Principal Global Investors (Europe) Limited ("PGIE") or Principal Global Investors (Ireland) Limited ("PGII") will not benefit from the protections offered by the rules and regulations of the Financial Conduct Authority or the Central Bank of Ireland, including those enacted under MiFID II. Further, where clients do contract with PGIE or PGII, PGIE or PGII may delegate management authority to affiliates that are not authorised and regulated within Europe and in any such case, the client may not benefit from all protections offered by the rules and regulations of the Financial Conduct Authority, or the Central Bank of Ireland. In Europe, this document is directed exclusively at Professional Clients and Eligible Counterparties and should not be relied upon by Retail Clients (all as defined by the MiFID).
- **United Kingdom** by Principal Global Investors (Europe) Limited, Level 1, 1 Wood Street, London, EC2V 7 JB, registered in England, No. 03819986, which is authorized and regulated by the Financial Conduct Authority ("FCA").
- **United Arab Emirates** by Principal Global Investors LLC, a branch registered in the Dubai International Financial Centre and authorized by theDubai Financial Services Authority as a representative office and is delivered on an individual basis to the recipient and should not be passed on or otherwise distributed by the recipient to any other person or organization.
- **Singapore** by Principal Global Investors (Singapore)Limited (ACRA Reg. No. 199603735H), which is regulated by the Monetary Authority ofSingapore and is directed exclusively at institutional investors as defined by the Securities and Futures Act 2001. This advertisement or publication has not been reviewed by the Monetary Authority of Singapore.
- **Australia** by Principal Global Investors (Australia) Limited (ABN 45 102 488 068, AFS Licence No. 225385), which is regulated by the Australian Securities and Investments Commission and is only directed at wholesale clients as defined under Corporations Act 2001**.**
- This document is marketing material and is issued in **Switzerland** by Principal Global Investors (Switzerland) GmbH.
- **Hong Kong SAR (China)** by Principal Asset Management Company (Asia) Limited, which is regulated by the Securities and Futures Commission. This document has not been reviewed by the Securities and Futures Commission.
- **Other APAC Countries/Jurisdictions**, this material is issued for institutional investors only (or professional/sophisticated/qualified investors, as such term may apply in local jurisdictions) and is delivered on an individual basis to the recipient and should not be passed on, used by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.
- Nothing in this document is, and shall not be considered as, an offer of financial products or services in Brazil. This presentation has been prepared for informational purposes only and is intended only for the designated recipients hereof. Principal Global Investors is not a Brazilian financial institution and is not licensed to and does not operate as a financial institution in Brazil.

Insurance products and plan administrative services provided through Principal Life Insurance Co. Principal Funds, Inc. is distributed by PrincipalFunds Distributor, Inc. Securities are offered through Principal Securities, Inc., 800 547-7754, Member SIPC and/or independent broker/dealers. Principal Life, Principal Funds Distributor, Inc., and Principal Securities are members of the Principal Financial Group®, Des Moines, IA50392.

Principal Asset Management℠