PGIM FIXED INCOME

# Q3 23

# QUARTERLY OUTLOOK

Published July 2023

# WHATS INSIDE?

Select a section to jump ahead.



| | Total Returns (%) | | | | |
|---|---|---|---|---|---|
| **Individual FI Sectors** | Q2 '23 | YTD '23 | 2022 | 2021 | 2020 |
| European Leveraged Loans | 3.25 | 7.26 | -3.36 | 4.87 | 2.4 |
| U.S. Leveraged Loans | 3.12 | 6.33 | -1.06 | 5.40 | 2.8 |
| EM Debt Hard Currency | 2.19 | 4.09 | -17.78 | -1.80 | 5.26 |
| EM Local (Hedged) | 1.99 | 4.34 | -8.85 | -5.52 | 6.07 |
| European High Yield Bonds | 1.85 | 4.79 | -11.13 | 3.32 | 2.9 |
| U.S. High Yield Bonds | 1.75 | 5.38 | -11.19 | 5.36 | 6.2 |
| EM Currencies | 0.80 | 3.96 | -7.14 | -3.09 | 1.73 |
| European IG Corporate | 0.43 | 2.18 | -13.65 | -0.97 | 2.77 |
| Municipal Bonds | -0.10 | 2.67 | -8.53 | 1.52 | 5.21 |
| U.S. IG Corporate Bonds | -0.29 | 3.21 | -15.76 | -1.04 | 9.89 |
| U.S. Long IG Corporates | -0.54 | 4.88 | -25.62 | -4.65 | 13.94 |
| CMBS | -0.60 | 1.20 | -10.91 | -0.64 | 8.11 |
| Mortgage-Backed (Agency) | -0.64 | 1.87 | -11.81 | -1.04 | 3.87 |
| U.S. Treasuries | -1.38 | 1.59 | -12.46 | -2.32 | 8.00 |
| Long U.S. Treasuries | -2.30 | 3.72 | -29.26 | -1.13 | 17.7 |
| **Multi-Sector** | | | | | |
| Yen Aggregate | 0.39 | 2.76 | -5.30 | -2.85 | -0.8 |
| Euro Aggregate (Unhedged) | 0.16 | 2.25 | -17.18 | -4.71 | 4.05 |
| Global Agg. Hedged | 0.06 | 2.96 | -11.22 | -0.15 | 5.58 |
| U.S. Aggregate | -0.84 | 2.09 | -13.01 | -1.39 | 7.51 |
| Global Agg. (Unhedged) | -1.53 | 1.43 | -16.25 | -1.54 | 9.2 |
| **Other Sectors** | | | | | |
| S&P 500 Index | 8.74 | 16.89 | -18.11 | 28.71 | 18.4 |
| 3-Month SOFR | 1.26 | 2.42 | 1.66 | 0.03 | -1.5 |
| U.S. Dollar (DXY Index) | 0.40 | -0.59 | 8.21 | 6.37 | -6.69 |

Past performance is not a guarantee or a reliable indicator of future results. See Notice for important disclosures and full index names. All investments involve risk, including possible loss of capital. Sources: Bloomberg except EMD (J.P. Morgan), HY (ICE BofA), Bank Loans (Credit Suisse). European returns are unhedged in euros unless indicated. Performance is for representative indices as of June 30, 2023. An investment cannot be made directly in an index.

PGIM FIXED INCOME

SECTION 1

# KEY CONVICTIONS & INVESTMENT THEMES

01

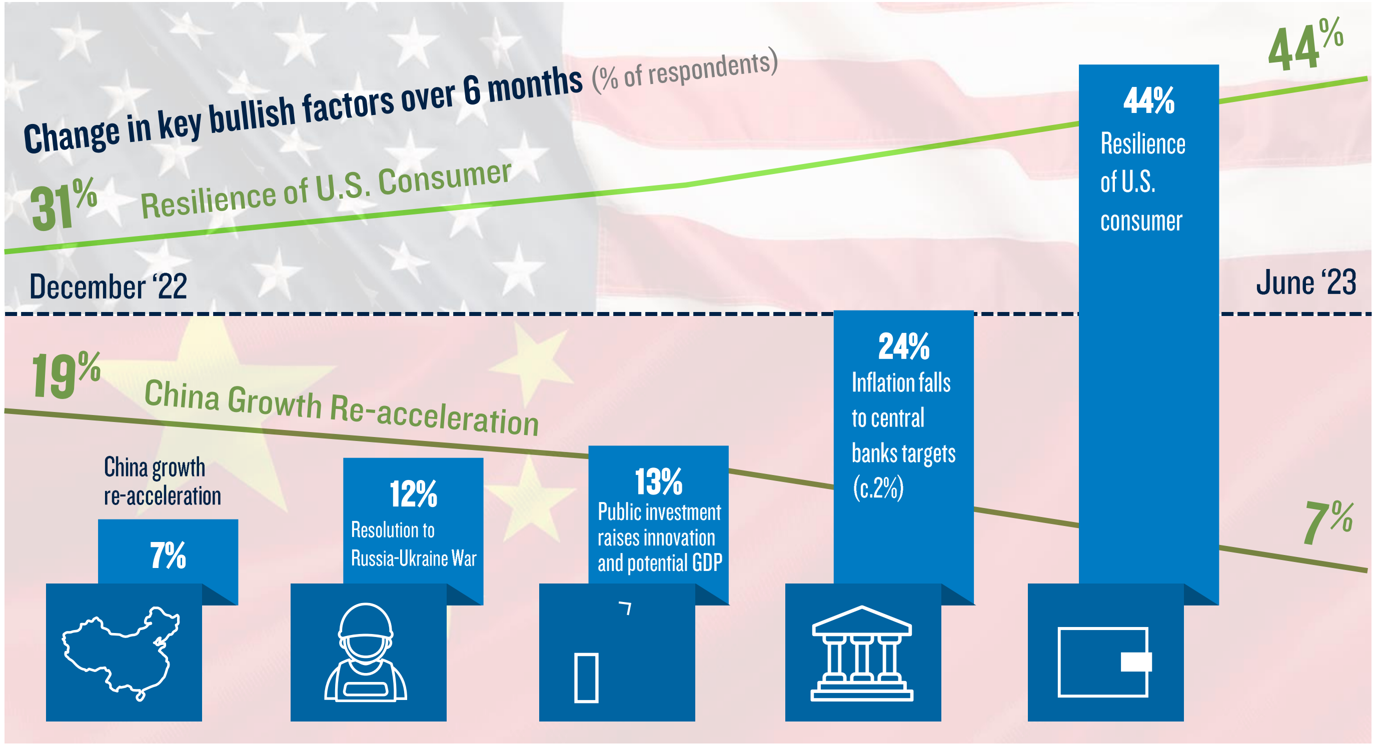
## KEY CONVICTIONS & INVESTMENT THEMES

**1) Two-sided Volatility.** Despite a series of rolling crises, the global economy avoided the worst of potential outcomes in the first half of 2023. The reprieve provided a reminder that the positive half of the distribution can materialize and warrants sufficient weighting. The reprieve is also evident in the preceding table of Q2 returns as risk assets outperformed the safe-haven sectors.

**2) Yield is Destiny—a Reiteration.** The elevated level of yields is a familiar theme and assumes newfound importance with the latest increase in developed market interest rates. The combination of increased income and the potential for capital appreciation creates an attractive total return profile. As the mixed second-quarter performance demonstrates, those returns won't occur linearly over the short term; they will accrue for those with longer-term time horizons.

**3) A Higher-Quality Skew.** Lingering uncertainties loom large, led by the cumulative effects of the global tightening in monetary conditions. Depending on the desired risk exposure, rationale exists for allocations into several fixed income asset classes. Yet, our recommendations for core holdings skews to higher-quality assets, or risk assets managed more conservatively, given the risks described in the following sections.

Our latest market survey of nearly 210 PGIM Fixed Income professionals includes their responses to a series of questions, such as the following that pertains to the positive half of the outcome distribution (see Investment Theme #1).




What do you think is the least appreciated bullish wildcard factor?
(% of respondents)

PGIM FIXED INCOME

SECTION 2

# BOND MARKET OUTLOOK

By Robert Tipp, CFA, Chief Investment Strategist & Head of Global Bonds

02

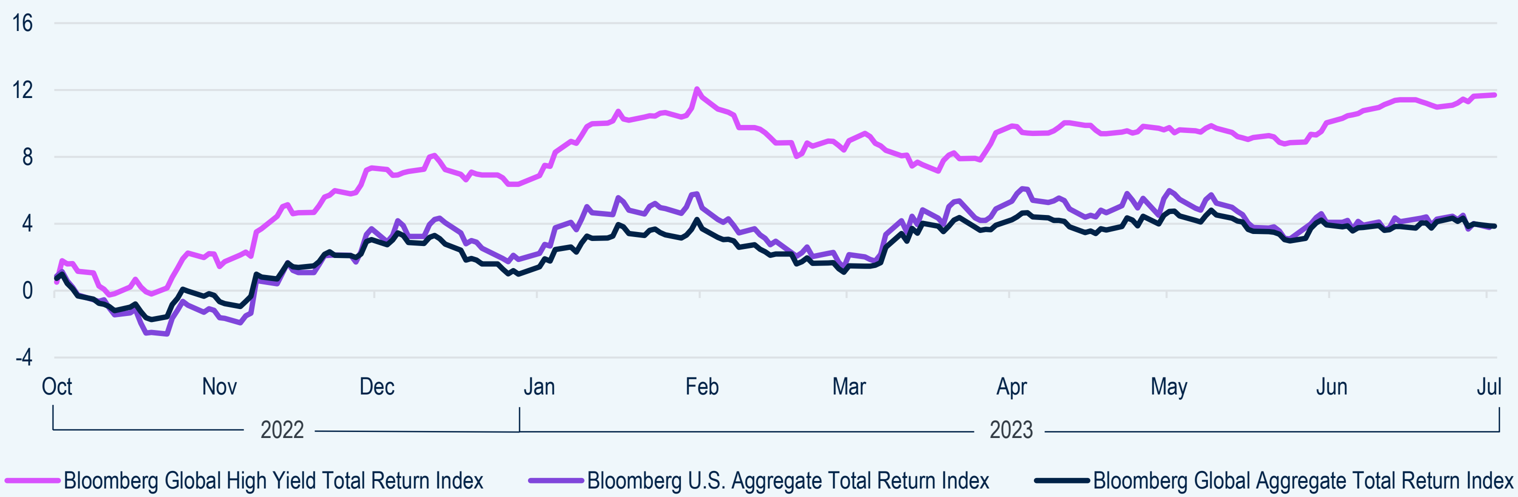
# FINAL STAGES OF HIKES, FIRST STAGES OF THE NEW BULL MARKET

**The young bond bull market that started last year took a performance pause in the second quarter.** The flight-to-quality rally of the first quarter—owing to the regional bank crisis—was reversed as fears of a credit crunch receded. Markets subsequently came to grips with the fact that, with inflation still high and unemployment low, central banks were unlikely to turn tail on their inflation fighting mission and begin cutting rates. Accordingly, markets pushed rates higher as they repriced from rate cut expectations back to expectations for further rate hikes in the months ahead. The newly elevated level of income generated by bonds, however, was generally sufficient to offset the price erosion from rising yields (Figure 1).

## DM Central Bank Hikes Slowing, EM Central Banks Approaching the Easing Point

With the third quarter underway, the pace of economic growth is moderating, but inflation remains far too high for central bankers to stop their rate hikes—just yet (see economics section). As the "will they" or "won't they" debate continues, **for developed market central banks**, the increments of the hikes are getting smaller, and they are skipping some meetings. These are signs that most of the increases are behind us and that **the hikes to come are increasingly fine-tuning exercises**. Meanwhile, **emerging market central banks**, many of which started hiking earlier and more aggressively, **are more clearly pondering how their cycles should end and when cuts should begin** (see Figure 2 for a breakdown of DM and EM central bank moves).

**Figure 1:**
Bull market checkpoint—after two solid quarters, the young bull market took its first pause in Q2 2023 as yields unwound some of the first quarter's flight-to-quality rally triggered by the U.S. regional bank crisis. (%)




Source: PGIM Fixed Income and Bloomberg

## Higher Yields, Higher Returns

**All said, this backdrop is likely to fuel a continuation of the bull market that began in Q4 2022, one driven not by a rapid drop in yields, but simply driven by yield itself.** After yields recovered from their depressed post-financial crisis and pandemic-driven levels back to heights not seen for years if not decades, we may now be experiencing / witnessing a bull market fueled by: 1. simply earning the decent amount of yield and; 2. the likely incremental return generated by non-government spread products over and above government returns.

## Declining Volatility to Support Spread Product Performance

The enemy of the spread markets over the last two years hasn't been credit deterioration as much as it has been anxiety. This relationship was clearly demonstrated by the strong connection witnessed between implied volatility on interest rates—a measure of uncertainty with regards to the magnitude and direction of expected interest rates fluctuations—and credit spreads (Figure 3). Effectively, any sudden movements in interest rates, whether occurring in last year's selloff or the first quarter's SVB rally, spooked investors, driving flows out of bonds and pushing spreads wider. With the pace of central bank rate hikes expected to dramatically downshift in the quarters ahead, **interest-rate volatility is likely to continue declining, which should allow spreads to remain range bound or, more likely, to narrow in the months ahead and provide a boost to fixed income returns.**

### Figure 2

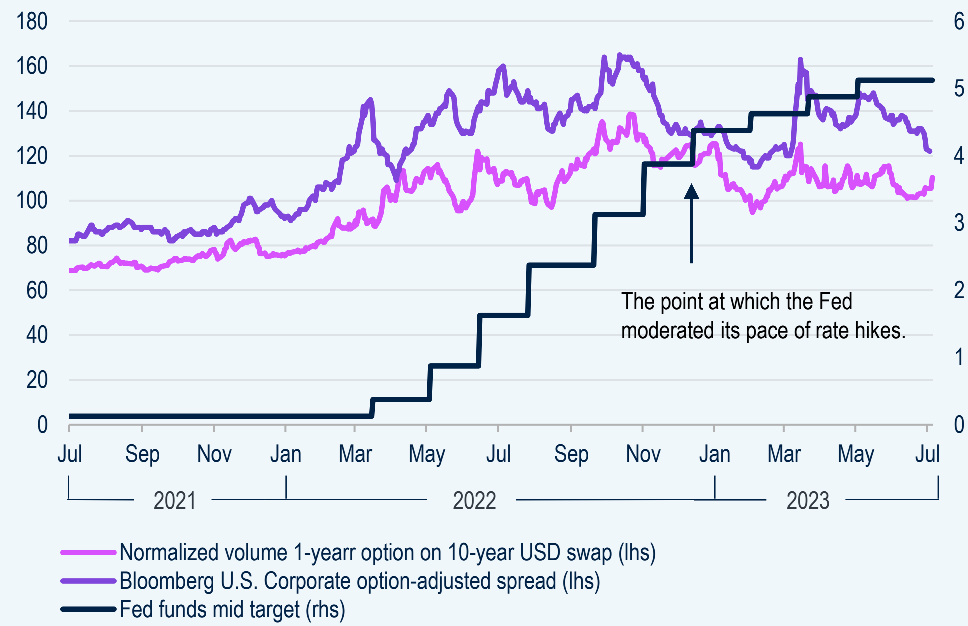
| DM Country | Key Rate | Last Decision | Action | Last Move | Months Since Last Hike | Months Since Last Cut |
|---|---|---|---|---|---|---|
| Australia | 4.10 | 0.25 | Hike | 6/23 | 1 | 32 |
| Canada | 4.75 | 0.25 | Hike | 6/23 | 1 | 39 |
| Denmark | 3.25 | 0.25 | Hike | 6/23 | 1 | 21 |
| Euro Area | 4.00 | 0.25 | Hike | 6/23 | 1 | 88 |
| Israel | 4.75 | 0.25 | Hike | 5/23 | 1 | 39 |
| Japan | -0.10 | -0.20 | Cut | 1/16 | 196 | 89 |
| New Zealand | 5.50 | 0.25 | Hike | 5/23 | 1 | 40 |
| Norway | 3.75 | 0.50 | Hike | 6/23 | 0 | 38 |
| South Korea | 3.50 | 0.25 | Hike | 1/23 | 6 | 37 |
| Sweden | 3.75 | 0.25 | Hike | 7/23 | 0 | 89 |
| Switzerland | 1.75 | 0.25 | Hike | 6/23 | 0 | 102 |
| UK | 5.00 | 0.50 | Hike | 6/23 | 1 | 40 |
| United States | 5.25 | 0.25 | Hike | 5/23 | 2 | 40 |
| **EM Country** | | | | | | |
| Argentina | 97.00 | 6.00 | Hike | 5/23 | 2 | 33 |
| Brazil | 13.75 | 0.50 | Hike | 8/22 | 11 | 35 |
| Chile | 11.25 | 0.50 | Hike | 10/22 | 9 | 39 |
| China | 3.55 | -0.10 | Cut | 6/23 | 113 | 1 |
| Colombia | 13.25 | 0.25 | Hike | 5/23 | 2 | 33 |
| Czechia | 7.00 | 1.25 | Hike | 6/22 | 12 | 38 |
| Hungary | 13.00 | 1.25 | Hike | 9/22 | 9 | 36 |
| India | 6.50 | 0.25 | Hike | 2/23 | 5 | 38 |
| Indonesia | 5.75 | 0.25 | Hike | 1/23 | 6 | 29 |
| Mexico | 11.25 | 0.25 | Hike | 3/23 | 3 | 29 |
| Poland | 6.75 | 0.25 | Hike | 9/22 | 10 | 37 |
| Russia | 7.50 | -0.50 | Cut | 9/22 | 16 | 10 |
| Saudi Arabia | 5.75 | 0.25 | Hike | 5/23 | 2 | 40 |
| South Africa | 8.25 | 0.50 | Hike | 5/23 | 1 | 35 |
| Turkey | 15.00 | 6.50 | Hike | 6/23 | 0 | 4 |

## All Isn't Well with the World, but it May be Good Enough for Bonds

**True, the horizon remains clouded by geopolitical events and the potential lagged impact of interest-rate hikes, all of which dictates vigilance regarding the evolution of the investment environment.** But the fact remains that the global economy has weathered the start of a war, upward inflation shocks, a fair amount of quantitative tightening, and a historic amount of rate hikes in reasonably good form. **With central banks set to moderate their rate hike paths, the bull market looks set to continue in the quarters ahead thanks to the newly restored levels of yield and the potential for incremental returns from spread product.**

**Bottom Line:** While risks remain, the pause of Q2 will likely be brief and the bull market that started in Q4 2022 is likely to resume over the second half of 2023.

**Figure 3:**
A unique feature of the recent market environment has been the tight correspondence between implied interest-rate volatility and credit spreads. As the Fed began to moderate its pace of hikes in late 2022, volatility and spreads seemingly peaked. As the central banks' rate actions become increasingly measured, interest-rate volatility is likely to remain stable or fall, allowing credit spreads to remain range bound, if not narrow, in a boost to fixed income returns. (lhs: bps; rhs: %)



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China's current recovery is emerging unlike its others, leaving the global economy without the familiar engine to pull it forward.

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SECTION 3

# GLOBAL MACROECONOMIC OUTLOOK

By Daleep Singh, Chief Global Economist & Head of Global Macroeconomic Research

03

# THE CYCLE EXTENDS FURTHER: WHAT MAY FOLLOW

**The first half of 2023 was anything but a continuation of 2022. A string of shocks emerged or festered over the past six months, each of which had the potential to derail the economic expansion and disrupt global markets, yet economic and financial conditions stabilized almost continuously in the second quarter of the year. While significant risks remain (more on those below), the continued resilience of the global economy reframes our outlook for the second half of the year and beyond.**

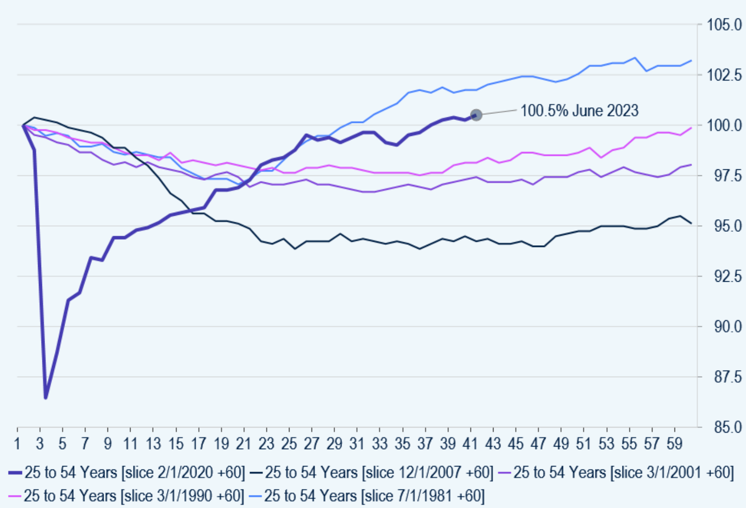
Before detailing our expectations, we must underscore that the first half of the year is just the latest reminder that we've entered a period of elevated macroeconomic volatility where regime shifts are likely to occur with greater frequency and consequence than experienced in recent memory.

Motivated by this reality, we continue to analyze and forecast the global economic environment through a framework of probability-weighted scenarios (click here for a summary of the scenarios). While they are not intended to cover the full range of potential outcomes, these scenarios aim to describe the most plausible macroeconomic environments that could drive investment returns over the next year.

The **U.S. economy** seemingly lurched from one crisis to another in the first half of the year. The string of regional bank failures in March—punctuated by deposit outflows and triggering a further tightening of bank credit standards—carried sizable ramifications for the macroeconomy as about 20% of U.S. credit provision flows through banks. At the time, this lifted the probability we assigned to recession, especially considering a looming debt ceiling impasse and the additional drag from another 75 bps of Fed funds hikes. With the benefit of hindsight—and against our earlier expectations—the bank failures didn't spark a systemic reckoning, nor did the debt-ceiling drama produce a sizeable fiscal drag. Meanwhile, labor demand showed only the faintest signs of slowing down, with 316,000 jobs created monthly on average in the first half of the year, buoying labor income and spending at above trend levels.

Meanwhile, though inflation has come off the boil since its peak in 2022, services inflation remains sticky on the way down. The stubbornness of services prices is in large part a reflection of "structural healing" in the labor market,

**Figure 1:** A Historically Speedy Labor Force Recovery (Indexed to 100)




Source: PGIM Fixed Income and Macrobond

as the strongest demand for workers is in the sectors that were hardest hit during the pandemic (e.g., leisure & hospitality, education, healthcare services, construction). We suspect this normalization process has at least 3-6 months more to run, which puts an even greater onus on continued improvements in labor supply (Figure 1) to rebalance the labor market as a whole. We remain optimistic that this process will unfold in the second half of the year, particularly with households expected to exhaust their pandemic-related excess savings and immigration adding meaningful numbers to the labor force each month.

With the prospect of balance returning to the labor market, we see a path for core Personal Consumption Expenditures (PCE) inflation to decelerate to less than 3.0% by the end of the year with an extended sequence of 0.2% m/m sequential prints (Figure 2), driven lower by core non-housing services prices. Clear and sustained evidence of a downshift on inflation, coupled with below trend growth, should be enough for the Fed to pause its rate hike campaign at 5.5%, prior to initiating a 50-75 bps "fine-tuning" campaign of cuts as early as Q4 2023.

Putting it together, our modal case (35% probability) calls for "weakflation" over the coming 12 months, the product of low, but positive, growth and declining, but still above target, inflation. As alternative scenarios, we see equal probabilities (25% each) for a recession and soft landing, followed by slimmer probabilities for a "nominal GDP boom" (10%) in which growth accelerates above trend and inflation remains too high, or a "roaring 2020s" scenario (5%), reminiscent of the late 1990s when a productivity boost lifted growth above the previous trend and kept inflation in check.

As an overlay to these scenarios, two tail risks for the U.S. economy—pointing in opposite directions—loom especially large to our watchful eyes. First, we'll continue to monitor for signs of distress within the commercial real estate sector (especially office) and the non-bank financial sector that could take on a life of their own as the Fed presses further into restrictive territory. Our instinct remains that many business models—especially outside the regulatory perimeter—simply aren't robust enough to withstand a tightening cycle as swift and severe as this one. Conversely, we are respectful of the potentially game-changing consequences to the supply side of the economy from public investments authorized by the Inflation Reduction Act, the CHIPS Act, and infrastructure bill. To the extent that the parabolic increase of construction spending in manufacturing (Figure 3) is a harbinger of things to come in business spending, it would have highly favorable consequences for productivity, trend growth, and financial returns across asset classes.

Following a better-than-expected winter in **Europe**, our outlook points to weak growth for the euro area. The avoidance of dire economic outcomes related to the energy crunch has positive knock-on effects for next winter. That said, global gas supplies are still tight and the fact remains that

**Figure 2:** Core PCE Potentially on its Way to the 2.5% Area (y/y %)

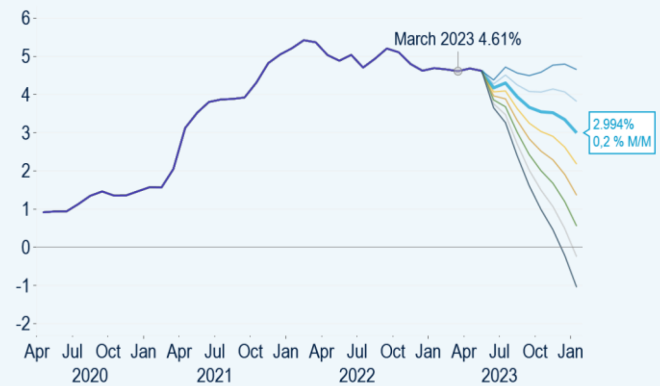



**Figure 3:** A Tech-led Manufacturing Renaissance? (USD in billions)


Source: PGIM Fixed Income and Macrobond

Europe will continue to be energy constrained over the foreseeable future. Moreover, a tail-risk scenario in which further energy price shocks associated with Russia's invasion of Ukraine cannot be ruled out.

A key aspect to watch going forward will be the extent to which headline inflation decelerates over the summer as indirect energy effects drop out of the calculation and a weaker economy begins to curb wage and price demands. Thereafter, we could see inflation "stuck" at just above the ECB's target as other prices adjust to the significant shift in relative energy price trends (Figure 4).

Although more resilient than expected, Europe's growth backdrop is beginning to show sign of structural headwinds. The only positive contribution to Euro Area GDP growth in Q1 came from net exports, which face increasing challenges. But even here, the data can deceive as exports are falling, but imports are falling by more. For example, Germany's exports to China have recently rolled over—owing in part to a significant reduction in auto exports, especially amid the surge in China's electric vehicle sales—producing a trade deficit with one of its largest trading partners. As a result, our Euro Area GDP projections remain well below trend and, at this point, appear set to dip below consensus estimates in the second half of 2023 and throughout 2024.

Regional and sectoral dispersion is also clouding the picture. For example, the manufacturing sector—particularly in manufacturing intensive economies, such as Germany—is weakening as higher energy costs and softening global demand weigh on production.  On the other hand, the services sector—particularly in tourism-based economies, such as Spain and Greece—is holding up well. Our view is that ultimately waning domestic demand for services, coupled with weaker global demand for manufactured exports, will translate into stagnant growth in Europe against a backdrop of elevated inflation. That said, a resilient labour market should put a floor under a significant deterioration in economic activity.

These factors also feed into a weakflation base case (40%) for Europe, comprised of only slightly positive growth and prolonged, above-target inflation. In essence, the growth picture is the net result of weak activity in Germany and stronger performance in the periphery. The inflation dynamic is expected to compel the ECB to lift its deposit rate to 3.75% at its July meeting with the risk of further rate increases in the second half of the year. To round out our scenarios, we place the probability of recession at 25%, followed by a soft landing at 15%, and nominal GDP boom and stagflation scenarios at 10% each.

**Our outlook for China** is bifurcated between a relatively sanguine short-term forecast—supported by additional monetary stimulus and an expected revival in fiscal stimulus—and a less constructive medium- to long-term picture given the country's considerable structural hurdles. China's current recovery is unlike others as it's relying on consumer-led growth following years of credit-fueled investment in property and infrastructure.

**Figure 4:** Probably Not a Quick Inflation Fix in Europe (%)

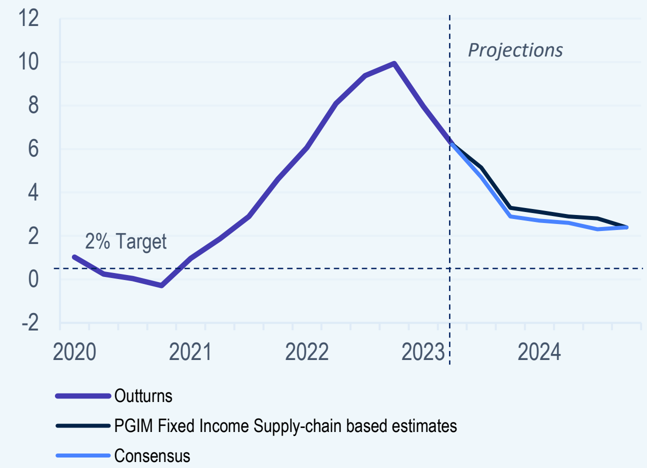



**Figure 5:** China's Consumer Momentum is Substantial, But Already Topping Out Below Trend (indexed to 100 as of July 2019)


Sources: PGIM Fixed Income and Macrobond

However, the consumer already appears to be losing momentum (Figure 5). Moreover, there is no evidence as of yet that the property slump (triggered by an overly ambitious deleveraging attempt in 2021) is bottoming out. In order to prevent the recovery from stalling and GDP growth from missing its target for the second consecutive year, we anticipate that fiscal stimulus will focus on local governments. As such, over the coming 12 months, our base case (50%) for China is for a soft-landing/moderation that consists of growth around 4.5-5.5% and inflation of 1.5%. This is followed by scenarios of strong nominal GDP (25%), weakflation (15%) as well as recession and roaring 2020s at 5% each.

However, fiscal stimulus across local governments risks lack of coordination as they are collectively facing a fiscal cliff considering that about 40% of their financing comes from land sales and property-related revenue. An uncoordinated approach could result in larger stimulus than warranted, underscoring China's persistent need to delever, which is one of the key risks weighing on China's medium- to long-term growth prospects. Other key risks include deteriorating demographics amid a historically low level of births in 2022 as its dependent population grows and de-risking as it faces export uncertainty as well as a more contentious relationship with the U.S. and its allies.

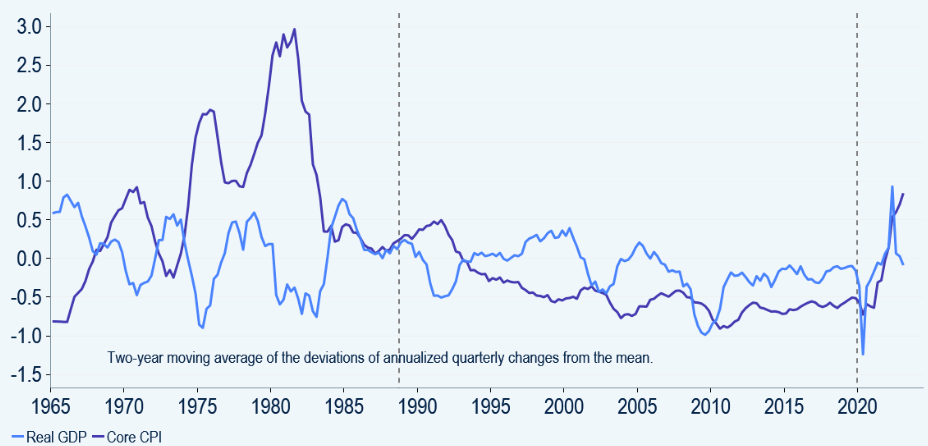
Given that the key drivers of China's medium-term growth are weakening, our GDP forecast for 2024 indicates a moderation that will likely continue in subsequent years. Over a five-year period, the country's growth may approach its potential at slightly less than 4%, and its growth potential may subsequently moderate to less than 3% over the coming 10 years.

### The Big Picture

While the first half of 2023 demonstrated that events can break in a positive or stable manner, from a broader perspective, China's deteriorating relationship with the U.S. and allies is a case in point of the structural change that is loosening global macroeconomic anchors.

In addition to intensified competition between great global powers, the evolving structural changes include heightened political polarization, the bumpy transition from fossil fuels to renewables, the de-risking of supply chains, and increasingly distinct technological ecosystems. This de-anchoring of what was the status quo implies that shocks will continue to rattle major economies, likely leading to an end of the period of great moderation that characterized the last few decades (Figure 6).

**Figure 6:**
The Likely End of the Moderation Era… (z-score)




Sources: PGIM Fixed Income and Macrobond

SECTION 4

# GLOBAL SECTOR OUTLOOKS

04

# DEVELOPED MARKET RATES

**Outlook:** Late-cycle conditions with declining volatility, established trading ranges. Market pricing of Fed rate cuts in '24 appears excessive, supporting underweight front-end duration. QT by the ECB and the Fed bears monitoring.

■ The developed market interest-rate complex is increasingly framed by late-cycle conditions with the conclusion of most central banks' hiking cycles within sight (see more on the Bank of England below). The improved clarity on monetary policy should contribute to a reduction in interest-rate volatility and benefit tactical positioning across the respective rate complexes.

■ In the U.S., we see the yield curve remaining solidly inverted due to marginal repricing at the front end based on estimates for an additional 25 bps hike in the Fed funds rate (or two hikes if data surprise to the upside). Meanwhile, demand at the back of the curve should remain consistent—particularly given the relatively high level of rates—based on the rolling series of crises that continue to emerge, but have yet to produce the more-feared outcomes.

■ Our expectations for the U.S. 10-year yield to trade in its current range and for relatively minor repricing at the front of the curve may further reduce interest-rate volatility. As such, we anticipate that the MOVE Index (see chart) should converge with equity market volatility (i.e., the VIX Index).

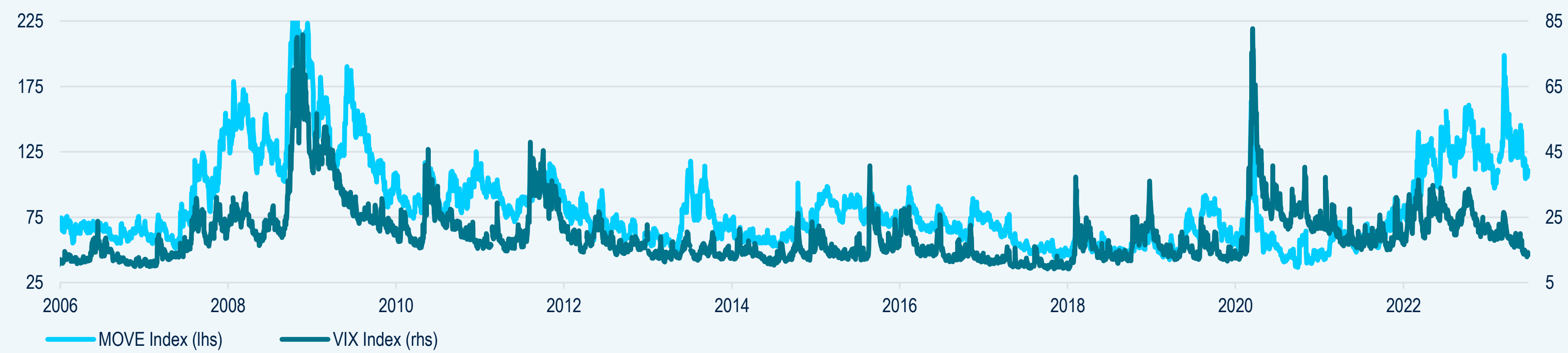
■ While the end of the Fed's hiking cycle may be within sight, our rate cut projections remain limited to 50-75 bps starting in Q4. This contrasts with market pricing of sizable cuts in 2024, which appears inconsistent with the Fed's projections and comments from Chair Powell during the June FOMC press conference. The Fed is "just not seeing a lot of progress" in the moderation of core PCE towards its target. "We want to see it moving down decisively."

■ Hence, we believe short positioning in front-end forward rates (i.e., 1-year 1-year OIS) is an attractive spot to earn carry and generally supports our short-duration positioning at the front of the U.S. curve.

■ In Europe, we anticipate range-bound conditions as well with the expectation that the ECB will lift its deposit rate to 3.75% considering the lingering inflation threat from its energy situation. The inflation fight in the UK has become particularly challenging given the recent acceleration in core inflation and wage growth, which prompted the BoE to hike its policy rate by 50 bps at the end of Q2.

**Figure**

Rate volatility may catch up with the reduction in equity volatility. (index level)




Source: PGIM Fixed Income and Bloomberg

With the BoE still actively engaged in tightening policy, the front end of the gilts curve remains susceptible to additional repricing.

- An additional consideration moving forward is the quantitative tightening (QT) process for the Fed and the ECB. In addition to the uncharted waters that a full QT cycle might bring (if it progresses that far), central banks' communication process will become more challenging when they pause policy or embark on rate cuts as QT potentially conveys a contrary signal of policy tightening. As for the Fed, its process may reach a point in Q4 where the funds needed to digest the increased net issuance of Treasuries may raise concern if it is overly reliant on excess reserves.

# AGENCY MBS

**Outlook:** Wary short term, constructive long term. After solid performance, valuations are less attractive, and we're avoiding production coupon TBAs due to convexity risks. Remaining constructive on lower coupons and covering underweights to the 15-year segment after underperformance. Reduced implied volatility may provide a consistent tailwind.

■ The MBS sector received an unexpected boost in Q2 as the FDIC auctions of securities in failed-bank portfolios led to outperformance in the respective MBS coupons. The focus on the auctions expanded the sector's buyer base with participation from buy & hold accounts, crossover buyers, and real money asset managers that re-emerged after a prolonged hiatus.

■ As Q3 begins, about half of the securities set for auction remain, which is well ahead of the initial schedule due to auction "upsizing" that allowed bidders to purchase more of the same CUSIPS at the same time. We anticipate that the auctions will conclude in relatively short order.

■ With the auctions contributing to the sector's momentum, MBS valuations have improved, but still appear attractive relative to rates, and we expect the latter trend to continue. As mentioned in our DM rates outlook, we expect rate volatility will continue to decline, thus providing another benefit for MBS.

■ In addition, mortgage rates remain near a 20-year high (see chart) and the housing market continues to experience a lack of affordable units—two factors which continue to weigh on origination activity. Similarly, refinancing volumes remain historically low.

■ Furthermore, from an index perspective, the increase in mortgage rates and the accompanying extension in duration across the coupon stack should limit the risk of convexity-related selling going forward. However, we could see some convexity pressure in production coupons as the bonds generally lack representation in the MBS index.

■ Other factors that could offset the positive momentum include the Fed's vigilance on inflation, and an uptick in economic data could prompt the Fed to turn more hawkish. Despite the auction success, the 15-year segment also lagged as it was hampered by the yield-curve inversion. As a result, we're covering some of our 15-year underweight following the underperformance.

**Figure**
Elevated mortgage rates will continue to constrain origination levels. (%)


Source: PGIM Fixed Income and Freddie Mac

■ Elsewhere, to-be-announced (TBA) dollar rolls are trading near the cost of carry, eliminating the opportunity to earn carry from basis trades for investors that cannot buy pools.

■ While the MBS buyer base expanded, demand from banks remains unclear. Although they may prefer MBS due to the risk treatment, their participation remains tough to gauge given the recent, regional bank turmoil. Based on how events unfold in the commercial real estate sector, it's also possible that accounts shift their preference toward CMBS considering its underperformance relative to MBS.



Source: PGIM Fixed Income and Freddie Mac

# ENVIRONMENTAL, SOCIAL, AND GOVERNANCE

- While the structural changes described in our economics section may take decades to unfold, firsthand signs of these changes can be jarring. Indeed, the recent records set for global atmospheric and ocean temperatures were accompanied by some unexpected effects of climate change and a reminder of the potential weather volatility to come.
- The recent smoke from Canada was the first encounter with the effects of wildfires for many in Midwest or East Coast cities. In late June, Chicago recorded an Air Quality Index score of 228 ("very unhealthy"). For context, in 2022, the average AQI scores for Chicago and Lahore, which holds the dubious title for having the world's worst air quality, was 9 and 97, respectively. The accompanying picture shows the smoke surrounding PGIM's offices in Newark, NJ in early June.
- The Canadian fires may be precursor to the U.S. wildfire season. In addition to the toll on public health and the environment, wildfires can pose a particular challenge to utilities. The need for increased capital expenditures is only part of the issue as utilities increasingly face decisions regarding proactive power shutoffs and liabilities from fire culpability (e.g., PacifiCorp and PG&E).

Source: PGIM Fixed Income

- We see wildfires as an example of ESG developments that can materially affect an issuer's credit quality, and our evaluation of these risks are ingrained in our credit research. We distinguish these ESG-related credit risks from the analysis that weighs the impact that issuers may have on the environment or society for those clients who choose to invest in line with their ESG and sustainability principles.
- Meanwhile, the re-emergence of the El Niño pattern—i.e., warmer Pacific water that pushes east amid weaker trade winds—is another factor that may contribute to heightened weather volatility in the second half of 2023. Indeed, there is a 84% chance of El Niño gaining moderate strength in the last quarter of 2023, according to the Oceanic Niño Index.
- Historically, El Niño's warm and dry weather conditions tend to hurt farm activity in parts of Asia, while excessive rainfall in South and Latin America can also disrupt production.
- The affected crops may include wheat, rice, maize, palm oil, and sugar (amongst others).

# ENVIRONMENTAL, SOCIAL, AND GOVERNANCE

- In the U.S., the West and South may experience increased rainfall, flooding, and the associated effects (e.g., landslides), which could impact infrastructure, supply chains, and agricultural harvests. It is also possible that the rains could help alleviate dry spells in drought-stricken areas.
- El Niño could also influence the global metal supply. For example, Chile supplies almost 30% of the world's copper, which is an essential electrical component, and flooding could restrict mine access.
- Droughts and flooding can also have an impact on power supply and disrupt manufacturing production. For example, China shut off power to many factories for nearly two weeks in 2022 due to drought and stretched power grids.
- We raise these issues not to be alarmist. After all, it's unclear how the U.S. wildfire and El Niño may develop, if at all. Rather these issues that may unexpectedly emerge are similar to the scenarios described in our economics section—no one can perfectly predict the weather, but it is surely within the remit of our credit analysts and ESG research team to explore the potential implications for credit conditions as well as ESG impacts for those choosing to invest in accordance with their environmental and societal beliefs.

# SECURITIZED CREDIT

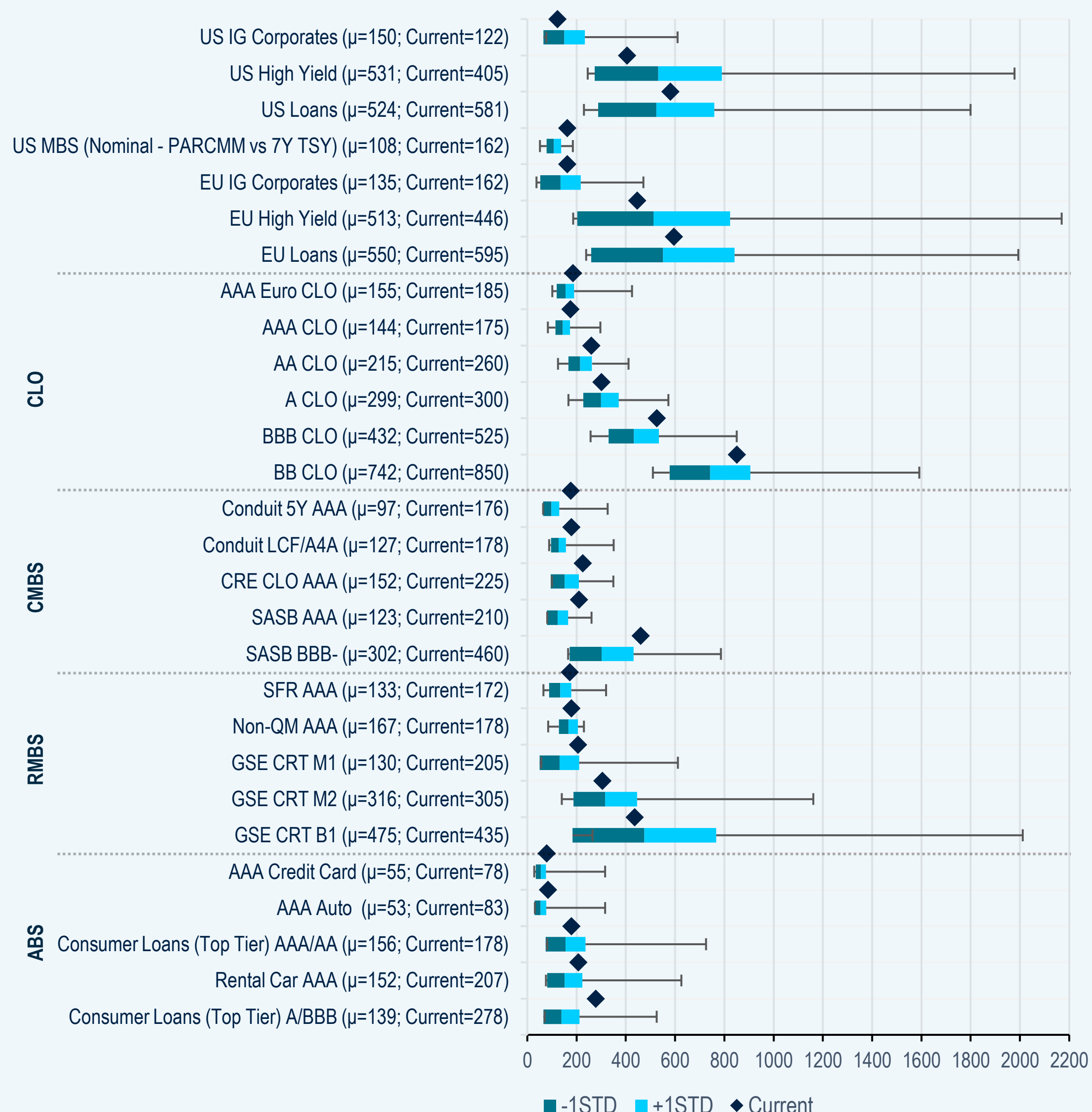
**Outlook**: Historically cheap senior tranches; select opportunities in junior credit. High-quality spreads remain wide due to banks' retrenchment. Furthermore, agency MBS trades at wide spreads and is a building block for securitized products. Credit curves have steepened amid repricing in some of the inherent credit risks of structurally levered mezzanine tranches. Notwithstanding wider mezz spreads, prices do not fully reflect our credit concerns and represent inadequate compensation for the negatively asymmetric risk/reward payoffs. Given the importance of entry points, we still favor senior, credit-risk remote tranches due to their attractive risk-adjusted return potential (see chart for perspective on credit valuation levels).

- **ABS:** Consumer default rates have increased to pre-pandemic levels as stimulus fades and the Fed's restrictive policy takes hold. However, consumer defaults have yet to meaningfully increase beyond pre-pandemic levels. There are some outliers, or dispersion, in consumer lenders who were late to pull back credit to the riskiest borrowers. Dispersion also exists with the fin-techs, or market-place lenders, whose artificial intelligence models did not account for the impact of inflation on disposable income, particularly for lower income cohorts. We remain vigilant for signs that consumer credit is weakening more broadly, but we have yet to see it in the data.

- **CLOs:** Underlying bank loans have been technically supported by low loan supply and strong demand from new issue CLOs. However, we

**Figure**

Valuation perspective in securitized, global credit, and MBS (spreads in bps; μ refers to the set mean)




Source: PGIM Fixed Income

continue to expect further deterioration in credit fundamentals. We expect downgrades to CCC and default rates to rise as higher rates stresses these floating-rate borrowers. We are also expecting low recovery rates on defaults resulting in higher cumulative net losses.

■ Loan market dispersion is very elevated as good quality companies trade near par—while many others trade below $85. CLO mezzanine tranche spreads have widened, but do not fully reflect our expected path of loan losses. Thus, we believe a better entry point in CLO mezz and equity lies ahead. Up the stack, AAA and AA CLOs in Europe and the U.S. markets appear very attractive.

■ **CMBS:** The commercial real estate sector remains challenged as higher interest rates and, in turn, higher capitalization rates pressure property valuations. In aggregate, we expect property valuations to fall 10-20% across most property types, but with a wide dispersion. Office properties are particularly challenged as the impact of work-from-home trends take hold.

■ We expect office vacancies, already high at 13%, to increase further. Our call is for office valuations to fall 20-50%, depending on the specific property. Industrial and multi-family properties have fared better on the back of robust demand and healthy rental growth rates. Furthermore, the market remains concerned about the ongoing financing for CRE from traditional banks (who make up about 50% of the lender group). Despite distress, opportunities are present, and expected to increase. Alpha will come from credit selection and not simply from a broad reflation of asset prices, as has been the case for the last two decades. The best relative value today is squarely in the AAA portion of the conduit market, but we are also very selectively investing in mezzanine tranches of single-asset, single borrower deals where we see debt on high-quality properties trading to scenarios that assume meaningful extension and an inability to refinance.

■ **RMBS:** Strong housing fundamentals continue to underpin our investments within mortgage credit, despite higher rates and their impact on affordability. Extremely tight inventories of homes available for sale resulting from homeowners locked into historically low mortgage rates has offset the effects of higher mortgage rates. Home prices are only down 2.7% since the June 2022 peak, and our expectation is a manageable drop of 5-10% since the peak. Mortgage delinquencies and defaults remain low. We remain constructive on RMBS performance, particularly credit risk transfer bonds.

# INVESTMENT GRADE CORPORATES

**Outlook:** We expect IG spreads to slightly tighten in Q3. Continued investor inflows and a slower pace of issuance in the typically quiet summer months could support prices. Corporate fundamentals have softened but remain strong, and a severe recession has become less likely. Even so, we continue to monitor and stress-test our positions in the event a slowdown lies ahead.

■ **U.S. IG corporate** bond spreads peaked during the regional bank crisis in March. But by the end of June, spreads had returned to where they had started the year. Performance was similar across rating categories in the first half of 2023.

■ But short-dated bonds (one to five years) underperformed because this cohort as a greater concentration of financial issuers. However, bonds of the "big six" money-center banks outperformed those of regional banks, of industrial firms, and of utilities in the first half of the year. In 2022, recession fears had weighed on the bonds of industrial firms, but the sector rebounded and outperformed utilities and the broader financial sector in the first half of 2023.

■ The U.S. IG sector underperformed U.S. high-yield bonds and emerging-market stocks and bonds in the first half of the year. With that context, we anticipate tighter spreads in Q3 '23 for the following reasons.

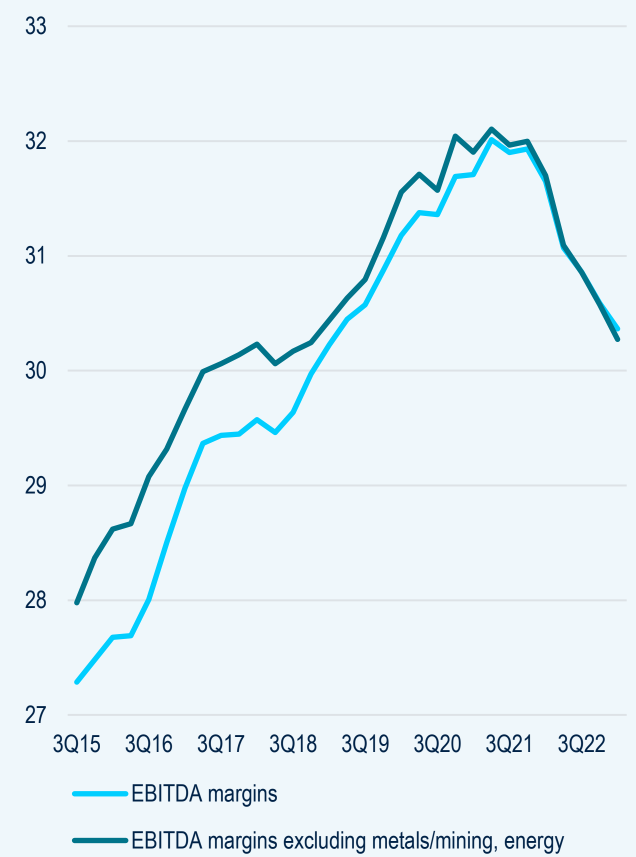
■ From a fundamental viewpoint, investors have reduced the odds of a severe recession. Although revenue and EBITDA levels have receded from their recent peaks (see chart), corporate fundamentals remain strong. In addition, higher bond yields have increased the cost of debt-financed shareholder friendly activities, including share buybacks and mergers & acquisitions etc., which often weigh on companies' creditworthiness.

■ Conditions appear favorable from a technical perspective as issuance usually slows in summer and investor inflows are returning to the sector after last year's outflows. Also, the average funding status of pension funds has improved significantly due to strong equity market performance and higher interest rates. Therefore, for those plans seeking to derisk and insurance accounts, yields in the IG market likely appear attractive. Finally, after outflows in 2022, non-U.S. buyers have returned to U.S. IG bonds due to the notable improvement in FX hedging conditions.

■ U.S. IG spreads are around their 10-year average, but yields are higher than they have been for 96% of the last decade. As a result, yields in the U.S. IG market compare favorably to the S&P 500's earnings yield.

**Figure**

Although fundamentals remain strong, EBITDA has rolled over. (%)




Source: J.P. Morgan and PGIM Fixed Income

■ In terms of the risks to our view, gauges of economic activity, such as falling ISM indexes and struggling commodity prices, indicate an economic slowdown may lie ahead. Furthermore, the Treasury yield curve continues to be inverted—often a bad omen for risk assets.

■ In addition, consumers may have exhausted their COVID-era savings, student loan repayments are to restart in the second half of 2023, and retailers are reporting lower non-essential spending. It may only be a matter of time before the Fed's higher interest rates, "sticky" cost inflation and waning corporate pricing power start trimming corporate profits.

■ Other strains for IG corporate bonds could include the return of regional banking stress, declining commercial real estate valuations, and continuing economic disappointments from China.

■ In our view, IG spreads will remain rangebound, and we expect to tactically adjust our positioning within that range. We're maintaining overweight positioning in banks, utilities, municipal bonds, and BBB-rated issuers that are deleveraging. Given the risks mentioned, we continue to stress-test issuers and industries that might suffer in a slowdown within this environment.

■ **European IG** corporate bond spreads tightened in Q2 and ended June just below where they had started the year. Investor demand easily absorbed several record-breaking weeks of new issuance during the second quarter. Issuance usually slows in summer, so if demand remains strong, that may herald tighter spreads going forward.

■ From a fundamental perspective, first-quarter earnings were largely in line with consensus, except for some notable misses in the chemicals sector. Issuers that missed their earnings guidance often faced significant selling pressure in their bonds.

■ Dwindling issuance during the summer may lead to tighter spreads. But longer-term market headwinds persist: inflation continues to cause concerns, especially in the UK. Russia's war in Ukraine may continue to trigger spikes in energy prices. The uncertain effects of China's fiscal stimulus is more of a concern for the European economy than for the U.S. And weakness in European real estate values continues to linger as a refinancing wall looms in 2024/25.

■ European spreads are moderately attractive, and Europe's economy is weakening, but likely to avoid another recession. As a result, we're taking a measured approach to risk: we see buying opportunities at IG corporate spreads at around 180 bps over European government bond yields, with selling opportunities at about 140 bps over.

# GLOBAL LEVERAGED FINANCE

**Outlook:** Cautiously positioned given the risk of an economic slowdown, but looking for signals to shift to a more risk-on stance. Active management and accurate credit selection will be rewarded amid increased credit dispersion.

- While we expect to see some deterioration of HY corporate fundamentals, we see some mitigating factors that will likely keep **U.S. high yield** spreads from widening sharply. First, if the economy enters a recession, our expectation is that it will be mild and short. Moreover, the market's composition is higher quality than in prior cycles, with BBs comprising nearly 50% of the market, net leverage remains near all-time lows (see chart), and interest coverage is near all-time highs.

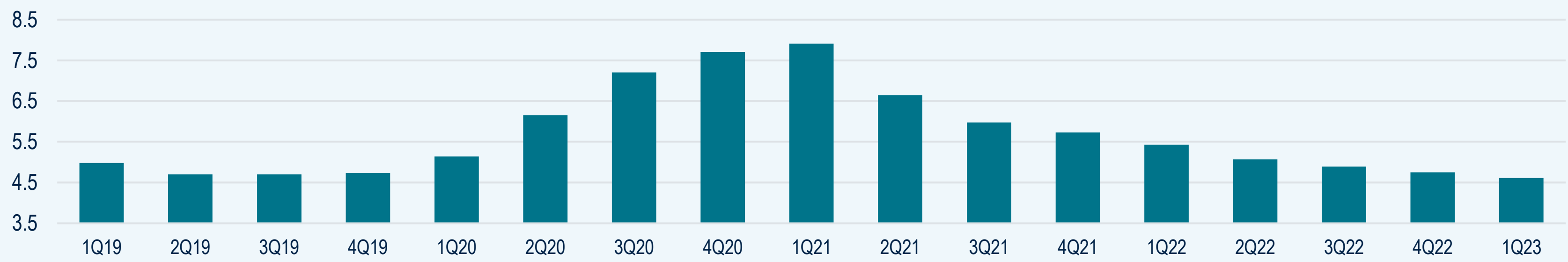
- Meanwhile, the technical backdrop remains supportive due to a variety of factors, including lower gross new issuance and a sizeable cohort of rising stars to IG leading to a meaningful supply deficit and an overall contraction in the high yield market. A general preference for up-in-quality credits (as the consensus view was more defensive in nature) has led to higher cash balances in HY funds, which entered Q2 above the historical average of cash holdings.

- Although we remain defensive, in the event of a downturn, we don't expect defaults to be as severe as in previous episodes due to the strength of most issuers' balance sheets and the absence of a near-term maturity wall as many issuers have already termed out debt at low interest rates. That said, the pace of credit ratings upgrades continues to slow, with the number of downgrades now higher than the number of upgrades. Should the economy enter a recession, we expect defaults to remain manageable, rising to 5% over the next 12 months.

- While our short-term outlook is somewhat positive, we forecast a flat excess return over the next 12 months. Although we remain defensively positioned, we are looking to opportunistically add higher-quality and shorter-duration positions on pullbacks from here. We are maintaining overweights to independent energy and power producers, reducing our overweight to home construction, reducing our underweight to cruise lines, and maintaining underweights to technology and media & entertainment.

**Figure**

U.S. leverage remains near all-time lows (LTM Debt/EBITDA)




Source: J.P. Morgan and Capital IQ

■ For **U.S. leveraged loans**, ratings downgrades have started to pick up, and we expect ratings agencies to be quicker to downgrade than to upgrade credits going forward. Given that the loan market is of lower quality than in prior cycles—with sponsor-owned low single-B loans comprising a large portion of the overall market—and the expectation that the rising cost of capital will reduce free cash flow, we continue to expect loan default rates to nearly double to 4-4.5% by year-end 2023.

■ While our outlook is tempered by recession risk, we continue to expect loans to post positive total returns in 2023. Against the backdrop of strong total returns so far this year, we recently boosted our 2023 total return forecast to 8.75% from 6-6.5%, supported by high all-in current coupons of nearly 9.0% and a yield-to-maturity of nearly 10.0%.

■ Given our ongoing macro concerns, we favor public, BB and high single-B loans over sponsor-owned, low single-B and CCC loans as we expect those lower-quality loans to be most impacted by the more challenging fundamental backdrop. We believe that credit selection and deep, fundamental credit research/modeling is becoming increasingly important and that the avoidance of defaults will be the biggest driver of alpha over the next 12–24 months.

■ We remain cautious in the near-term on **European High Yield and European Loans**. Spreads have tightened so far in 2023 as the supply of new issuance has been modest and markets have priced in a lower probability of recession over the next few months. However, we expect the second half to see an increase in primary as issuers address 2024 maturities and the technical picture to become more of a headwind.

■ While yields remain attractive on an absolute basis, credit spreads are only modestly wider than the ten-year average. While we expect spreads to remain rangebound during the summer amid a general lack of supply, we expect them to widen over the next six months as an environment of weak growth and high core inflation is now our base case.

■ The ECB has maintained a consistently hawkish tone and the market is pricing almost three additional hikes than just three months ago. Persistently high inflation and geopolitical challenges create a tough environment for consumers, corporates, and central bankers to navigate, and the probability of tightening credit conditions and low economic growth remain high in our view. That said, we continue to look for signals to shift to a more risk-on stance as we expect both bonds and loans to post positive total returns over the next 12 months.

■ An earnings recession and/or increased interest costs will erode fundamentals, and we expect to see a pickup in defaults over the next 12 months, but this should be relatively modest given the lack of near-term maturities, strong liquidity of issuers, and the market's general high quality. Higher defaults in 2024 and 2025 are likely, particularly among lower-rated loan issuers.

■ In terms of positioning, we are running near market neutral levels of risk with elevated cash balances and reduced levels of risk in cyclical sectors, lower conviction credits, and credits that are sensitive to rising interest costs. We are also opportunistically adding carefully selected credits that have dislocated from fair value and present compelling relative-value opportunities. Ultimately, we think active management and accurate credit selection will continue to be rewarded as volatility continues.

# EMERGING MARKET DEBT

**Outlook:** Room to marginally increase risk across EM debt segments. Focusing on attractive, bottom-up spread and yield opportunities. Given the remaining uncertainties, the dispersion in quality, fundamentals, and valuations offers latitude to construct portfolios that can outperform whether headwinds or tailwinds dominate.

■ **The EM landscape**—Headwinds turned into tailwinds in Q2 as a full-blown banking crisis was avoided and the U.S. debt ceiling stand-off was resolved. As a result, EM debt recorded gains, but the persistence of that momentum in Q3 depends on the U.S. economy and the Fed, China's anticipated stimulus and its economic effect on the emerging markets, and developments in Ukraine.

■ Our base case assumes that the global economy slows, that inflation falls in the U.S. and in EMs, and that China introduces meaningful stimulus soon. In the medium term (one to three years), the growth differential between emerging markets and developed economies will continue to attract capital to emerging markets. EM yields/carry will continue to attract long-term investors.

■ In EM hard-currency credit spreads, we see opportunities in a credit "barbell": at the long-dated end, this positioning consists of attractive opportunities in the bonds of resilient governments and corporates with minimal financing needs. At the short-dated end, our portfolios hold positions in distressed government debt that already trade at or below recovery values.

■ EM local-currency debt remains attractive, but we remain cautious on EM currencies.

■ **EM Hard-Currency Government Bonds: Impressive Rebound and Resilience, So What's Next?** Spreads remain attractive compared to developed markets, technicals are supportive after large outflows in the last 18 months, and investors are positioned defensively. But, regardless of broader dynamics, idiosyncratic factors will provide the clearest alpha opportunities. So, we continue to look for bonds with prices that factor in more headwinds than are likely to occur and to identify tailwinds, such as falling inflation or global economic resilience, that could accompany bottom-up, relative-value opportunities.

■ Risks primarily come from sluggish growth with high inflation and geopolitical threats. Spreads may widen, but the yield-to-maturity of the benchmark index can absorb 90 bps of spread widening before total returns turn negative on a one-year basis.

■ **The Drivers of our fundamental thesis:** economic shocks in the past years have resulted in higher EM interest rates and slowing growth. However, inflation has slowed faster in emerging markets than in developed markets, so EM central banks are closer to rate cuts.

■ Meanwhile, growth differentials—a key historical indicator to the direction of credit spreads—are set to increase in emerging markets' favor as developed-market growth moderates (see chart). Although EM growth is unlikely to reach the levels of the past 20 years, appropriate policies can stabilize and improve EM fundamentals. Even if China's economy slows, EM countries, such as India, will record respectable growth. Near-shoring and green investment will help other emerging markets (e.g., India, Asia, Mexico, commodity exporters in sub-Saharan Africa and Latin America).

■ Elsewhere, commodity prices are at a sweet spot: importers see lower price stress and most exporters are breaking even or, in the case of higher-quality issuers, hold adequate reserves to lean on.

■ Some highly indebted countries are resolving their unsustainable debt burdens. Zambia has reached an agreement with bilateral lenders under the G20 Common Framework. This is the precursor to an agreement with bondholders. Next are Ghana and Sri Lanka, but it is unclear if they will resolve their debts under the same framework.

■ A key aspect is how China will be included and treated in these negotiations. U.S. and European efforts to counter the influence of China and Russia are an interesting twist to how distressed EM issuers might be treated.

■ We increased risk in Q2, focusing on higher-quality BB-rated issuers (Serbia, Colombia) and BBB-rated issuers (Romania, Mexico), which had been our focus over the last two years. Looking ahead, we'll focus on the following:

■ We continue to concentrate on BB-rated and, to a lesser extent, BBB-rated issuers with strong fundamentals and attractive spreads. Most opportunities are in governments and quasi-sovereign issuers that have low financing needs and stable fundamentals, or in quasi-sovereigns that have government support.

■ Many B-rated issuers appear attractively valued, but with imbalances that warrant caution before we cover our underweights. We are likely to look for higher levels of global growth and idiosyncratic factors before we see a sustainable recovery in these names.

■ The average price differential between B-rated and distressed issues (CCC and below) is wide: around ¢86 versus ¢38 on the dollar, respectively.

■ The EM bond market reopened to new issues in Q2, and governments and quasi-sovereign issuers across the ratings spectrum took advantage. More issuers tapped into pockets of liquidity with sukuks, liability management exercises, ESG issuance (more than $6.5 billion for the quarter), and credit-enhanced deals.

■ One recent development of interest was Ecuador's debt-for-nature swap, supported by the Inter-American Development Bank and the U.S. International Development Finance Corporation. Such structures, and official organizations' willingness to back-stop them, augur well for long-term flows into the sector.

■ **Upgrading our EM corporate outlook.** The world's benign economic outlook and EM corporate bonds' relative value, compared to developed markets, represent an opportunity. In our previous outlook, we suggested that spreads were pricing in an economic slowdown and that credit fundamentals were resilient. Since then, some storm clouds have lifted and technicals have become even more favorable, with less new issuance than expected. We remain cautious in areas of concern, like Chinese industrials and property as well as Turkish financials.

**Figure**
EM poised to regain growth premium and potential outperformance (%)


Sources: IMF (EM-DM growth differential), Bloomberg (returns). The forecasts provided herein are for informational purposes. There can be no assurance that these forecasts will be achieved.

■ We continue to favor select BB- and BBB-rated issuers in stable countries, such as Mexico, India, and Israel. Spreads on BBB-rated and BB-rated EM corporates of about 200 bps and 400 bps, respectively, are attractive compared to developed-market spreads, and we expect the spread differential between emerging and developed markets to compress. We've covered our portfolios' underweight allocations to lower-rated issuers in oversold sectors, such as commodities, and we've added quasi-sovereign issues in Central and Eastern Europe (CEE). We especially like Latin American utilities and airports.

■ New issues have started to pick up. We are selective in areas like bank capital, but we have found opportunities in Korean higher-quality issuers, Chilean pulp and paper, and Central and Eastern quasi-sovereigns.

■ Fundamentals, including earnings, have developed as expected. EM corporate balance sheets remain resilient and refinancing schedules are mostly manageable. Default expectations for 2023 remain within historical ranges, and the expectation is that 2024 defaults will remain contained as the high-yield refinancing schedule is manageable.

■ **EM Local-Currency Bonds – Attractive Opportunities for Solid Returns**. After the demise of Silicon Valley Bank, we changed our stance in EM local-currency bonds from a focus on relative value to directional, long duration. In Q2, EM local-currency bond yields fell 25 bps, 50 bps more than 10-year U.S. Treasury yields, amid lower-than-expected EM inflation and stronger EM currencies against the U.S. dollar. Lower commodity prices further boosted sentiment. As Q2 ended, we were running high conviction in our positioning, with increased risk.

■ EM local-currency bond yields remain attractive. Investors' pricing of central bank rate cuts in Latin America, Poland, Hungary, and Czechia appear consistent with historical cutting cycles. But in Asia, only modest cuts are priced in, since Asian central banks did not overtighten policy to begin with.

■ At the start of Q3, we are net long duration in all regions. Our highest-conviction overweight positions are in Brazil, Mexico, Korea, Malaysia, and South Africa. We maintain underweight positions in Turkey and Egypt. But the partly inverted EM yield curve implies negative roll-down and carry, so we expect three- to five-years bonds to outperform shorter-dated and longer-dated bonds. In bonds with five years or more to maturity, we have a steepening bias.

■ Barring a hawkish surprise by the Fed, we expect the downward trend in EM yields to accelerate as investors focus on EM central bank rate cuts. Our expectation for the second half of 2023 is that the yield of the GBI-EM index will fall 25 to 35 bps. In that scenario, the index yield would bottom at 6% to 6.10%, from its current level of 6.35%.

■ During Q2 '23, we went from low conviction and relative-value positioning in EM currencies to high conviction on long U.S.-dollar positioning. As we expected, Chinese data continued to disappoint and global economic data came in below expectations. But EM currencies strengthened over 1.5%, versus the U.S. dollar during 2Q '23, with Latin American currencies nearly 8% higher, EM European currencies over 3% higher, and Asia lagging at 1% weaker.

■ Carry has been popular with investors. Latin American currencies have diverged from their terms-of-trade trends as investors have flocked into carry trades. Additionally, U.S. real interest rates were higher in Q2 '23 as inflation break-evens fell. Historically, this regime produces the highest and most consistent gains for the U.S. dollar, but Q2 '23 was an anomaly.

■ In our portfolios, we maintain high-conviction long U.S.-dollar positioning, with caution on EM currencies. We are mainly underweight EM Asian currencies and, to a lesser degree, EM European and Latin American currencies. We have reduced our exposure to carry currencies such as the Hungarian forint, the Indonesian rupiah, and the Indian rupee. Our largest positions include the Colombian peso, the Indonesian rupiah (despite the reduced exposure), the South African rand and, on the short side, the South Korean won, Singapore dollar, Chinese renminbi, and Chilean peso.

# MUNICIPAL BONDS

**Outlook:** Positive. While our optimism is constrained, municipals could see further appreciation as the effects from the debt ceiling debate, rate uncertainty, and banking crisis dissipate.

■ Although municipal bond market returns have been firmly positive so far in 2023, the strong returns projected at the outset of the year have not yet materialized (Figure 1). We believe the market has been constrained by several obstacles, including fund outflows, the Fed's aggressive hiking regime, the debt ceiling debate, and the liquidation of large muni bond portfolios by regional banks in the wake of the U.S. banking shock. As these obstacles dissipate, we believe municipal bonds could see further appreciation.

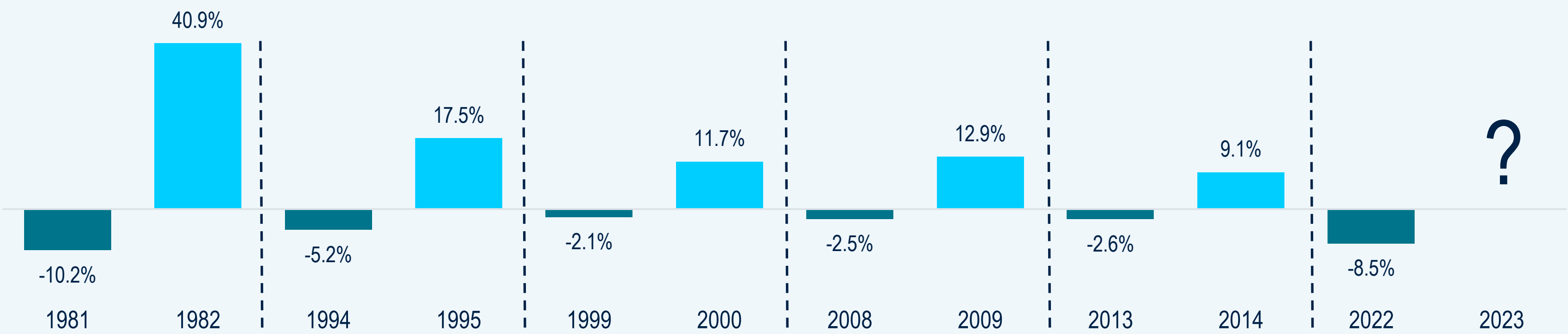
■ While our optimism is constrained, technicals should provide a tailwind over the coming months. We are in a seasonally strong period for municipals, with heavy reinvestment activity and lower issuance. Historically, municipal bond market performance tends to be positive during the summer months amid negative net supply. Additionally, fund outflows have decelerated in recent weeks, and, as the Fed approaches the end of its rate hiking cycle and rate volatility subsides, we expect fund flows to turn positive.

■ Furthermore, spreads remain relatively wide, particularly for high yield and pre-pay gas bonds, and credit quality remains healthy following a period of strong tax collections and rising rainy-day funds. Airports, tollroads, and pre-pay gas are sectors that have maintained their fundamental integrity, and we believe long-term opportunities exist in these segments. We remain cautious around the healthcare sector and the development sector given the prevailing headwinds.

■ After a strong showing to begin 2023, taxable munis should continue to show resiliency. Taxable supply is down 50% year-over-year amid higher rates and Fed uncertainty, which should translate into less spread volatility. More generally, spreads could be more resilient than corporates during an economic slowdown.

**Figure**

Municipal Index annual losses followed by blockbuster returns: 1980-2022




Source: Bloomberg

SECTION 5

# SUMMARIES

05

## SUMMARY OF OUTLOOKS & ASSET CLASS VIEWS

This summary facilitates the comparison of our short-term positioning outlooks as well as our long-term (1-year) asset class views. The latter is based on a scale of 1-10 and indicates our expectation of the asset class return relative to our expectation for the broader market's risk-adjusted return. For example, 1 indicates an expectation for the asset class to vastly underperform the market and 10 indicates an expectation for the asset class to vastly outperform the market.[1]

| Long-term Market Scores |
|---|
| U.S. |
| Europe |
| EM |

| Sector | Outlook | Asset class views* | |
|---|---|---|---|
| **DM Rates** | **Late-cycle conditions with declining volatility, established trading ranges.** Market pricing of Fed rate cuts in '24 appears excessive, supporting underweight front-end duration. QT by the ECB and the Fed bears monitoring. | U.S.<br>Germany<br>Japan | |
| **Agency MBS** | **Wary short term, constructive long term.** After solid performance, valuations are less attractive, and we're avoiding production coupon TBAs due to convexity risks. Remaining constructive on lower coupons and covering underweights to the 15-year segment after underperformance. Reduced implied volatility may provide a consistent tailwind. | Agency MBS | |
| **Securitized Credit** | **Historically cheap senior tranches; select opportunities in junior credit.** High-quality spreads remain wide due to banks' retrenchment. Furthermore, agency MBS trades at wide spreads and is a building block for securitized products. Credit curves have steepened amid repricing in some of the inherent credit risks of structurally levered mezzanine tranches. Notwithstanding wider mezz spreads, prices do not fully reflect our credit concerns and represent inadequate compensation for the negatively asymmetric risk/reward payoffs. Given the importance of entry points, we still favor senior, credit-risk remote tranches due to their attractive risk-adjusted return potential. | CMBS<br>CLOs | ABS |
| **Global IG Corporates** | **We expect IG spreads to slightly tighten in Q3.** Continued investor inflows and a slower pace of issuance in the typically quiet summer months could support prices. Corporate fundamentals have softened but remain strong, and a severe recession has become less likely. Even so, we continue to monitor and stress-test our positions in the event a slowdown lies ahead. | U.S. Corps. 1-10<br>U.S. Corps. 10+ | European Corps. 1-5<br>European Corps. 5+ |
| **Global Leveraged Finance** | **Cautiously positioned given the risk of an economic slowdown, but looking for signals to shift to a more risk-on stance.** Active management and accurate credit selection will be rewarded amid increased credit dispersion. | U.S. High Yield 1-5<br>U.S. High Yield 5+<br>U.S. Leveraged Loans | Euro High Yield BB<br>Euro High Yield B and below<br>Euro Leveraged Loans |
| **EM Debt** | **Room to marginally increase risk across EM debt segments.** Focusing on attractive, bottom-up spread and yield opportunities. Given the remaining uncertainties, the dispersion in quality, fundamentals, and valuations offers latitude to construct portfolios that can outperform whether headwinds or tailwinds dominate. | Sov. Hard Currency IG<br>Sov. Hard Currency HY<br>Local rates[2] | EMFX[2]<br>Corps. IG<br>Corps. HY |
| **Municipal Bonds** | **Positive.** While our optimism is constrained, municipals could see further appreciation as the effects from the debt ceiling debate, rate uncertainty, and banking crisis dissipate. | Tax-Exempt[2] | Taxable |

[1] The positioning in a respective portfolio may not identically align with the long-term ratings. The ratings and information herein is for comparison purposes.
[2] The scores on the indicated asset classes are on an absolute basis as they combine the expectation for risk-adjusted market returns and asset class specific returns.

NEGATIVE VIEW

POSITIVE VIEW

| Sector | | Subsector | Spread change (bps) Q2 | SOFR OAS 6/30/23 |
|---|---|---|---|---|
| CMBS | CMBS: Conduit AAA | First-pay 10-year | -26 | +178 |
| | CMBS: Conduit BBB- | BBB- | -49 | +960 |
| | CMBS: SASB – Senior | AAA | -15 | +210 |
| | CMBS: SASB - Mezz | BBB- | -40 | +460 |
| | CMBS: Agency Multifamily | Senior | -13 | +91 |
| Non-Agency RMBS | Legacy | RPL Senior | -10 | +172 |
| | Legacy | '06/'07 Alt-A | -15 | +280 |
| | GSE Risk-Sharing | M2 | -35 | +305 |
| CLOs | CLO 2.0 | AAA | -15 | +175 |
| | CLO 2.0 | AA | 10 | +260 |
| | CLO 2.0 | BBB | -50 | +525 |
| ABS | Unsecured Consumer Loan ABS | Seniors | -19 | +177 |
| | Unsecured Consumer Loan ABS | Class B | -19 | +224 |
| | Refi Private Student Loan | Seniors | -19 | +182 |
| | Credit Card ABS | AAA | -4 | +77 |

Source: PGIM Fixed Income.

| | Total Return (%) | | Spread Change (bps) | | OAS (bps) |
|---|---|---|---|---|---|
| | Q2 | YTD | Q2 | YTD | 6/30/23 |
| U.S. Corps. | -0.29 | 3.21 | -15 | -7 | 123 |
| European Corps. | 0.43 | 2.18 | -7 | -4 | 163 |

Source: Bloomberg. Represents data for the Bloomberg U.S. Corporate Bond Index and the Bloomberg European Corporate Bond Index (unhedged).

| | Total return (%) | | Spread / yield change (bps) | | OAS (bps)/ yield % |
|---|---|---|---|---|---|
| | Q2 | YTD | Q2 | YTD | 6/30/23 |
| EM Hard Currency | 2.19 | 4.09 | -52 | -21 | 432 |
| EM Local (Hedged) | 1.99 | 4.34 | 27 | -27 | 6.00% |
| EMFX | 0.80 | 3.96 | -165 | -6 | 7.26% |
| EM Corps. | 1.37 | 3.64 | -51 | -22 | 324 |

Source: J.P. Morgan.

| | Total return (%) | | Spread change (bps) | | OAS/ DM (bps) |
|---|---|---|---|---|---|
| | Q2 | YTD | Q2 | YTD | 6/30/23 |
| U.S. High Yield | 1.63 | 5.41 | -53 | -74 | 405 |
| Euro High Yield | 1.56 | 4.37 | -32 | -53 | 458 |
| U.S. Leveraged Loans | 3.12 | 6.33 | -28 | -71 | 581 |
| Euro Leveraged Loans | 3.08 | 6.98 | -48 | -114 | 595 |

Source: ICE BofAML and Credit Suisse.

| | Total return (%) | |
|---|---|---|
| | Q2 | YTD |
| High Grade Tax-exempt | -0.10 | 2.67 |
| High Yield Tax-exempt | 1.65 | 4.43 |
| Long Taxable Munis Agg Eligible | -0.34 | 5.43 |

Source: Bloomberg. Represents the Bloomberg Municipal Bond Indices.

Past performance is not a guarantee or a reliable indicator of future results. See Notice for important disclosures. All investments involve risk, including possible loss of capital. An investment cannot be made directly in an index. All data as of June 30, 2023.

# UNITED STATES—POTENTIAL SCENARIOS

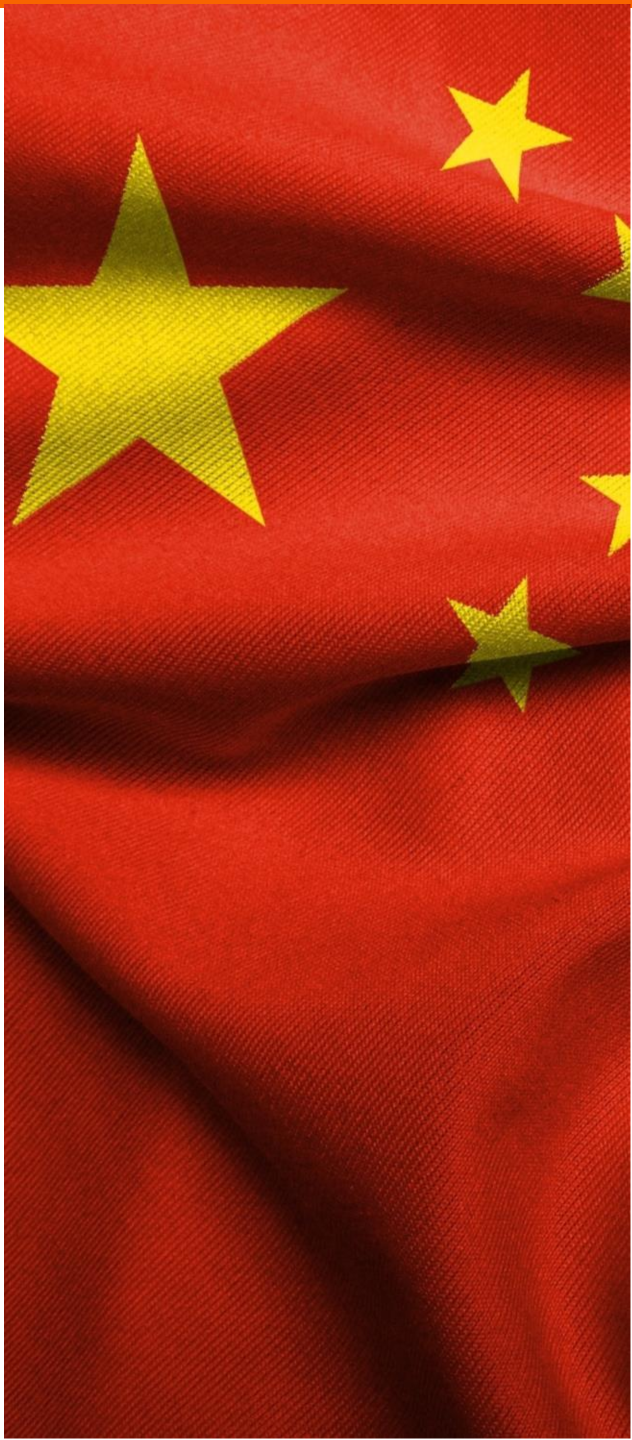
| Scenarios | Probability |
|---|---|
| **Weakflation**<br>Tight monetary, fiscal, and credit conditions combine to weaken growth to just above flat. Meanwhile, the labor market remains solid enough to keep services inflation too high and persistent for the Fed to cut more than 50-75 basis points. Risk assets perform reasonably well, though high inflation prevents longer-maturity yields from rallying. | 35% |
| **Recession**<br>The labor market runs out of steam, denting income and spending just when the combined weight on tight monetary, fiscal, and credit conditions begins to mount. Unemployment rises and inflation falls with a lag, leading to a substantial Fed easing cycle starting in Q4 2023 and extending to below neutral rates. U.S. rates rally and risky assets correct lower. | 25% |
| **Soft Landing**<br>Growth remains resilient in the 1-2.5% range, while inflation converges towards the 2% PCE target. Banking woes ease and the labor market softens, but remains robust enough to power consumption. The Fed cuts rates as inflation cools and growth remains resilient. Favorable environment for interest rates and risk assets. | 25% |
| **Nominal GDP boom**<br>Rapid resolution to banking rout allows growth to remain resilient while inflation stays above 2%. Solid labor market supports consumer demand. Above target inflation means the Fed keeps rates high, leading to higher rates relative to forwards. Rates curve stays inverted. Risky assets resilient. | 10% |
| **Roaring 2020s**<br>U.S. growth accelerates above trend, supported by high productivity growth as the dividend of public investments and diffusion of technology during the pandemic. Inflation drops rapidly as supply shocks, rents, and the labor market ease, and the Fed can eventually ease policy. Risky assets and rates rally. | 5% |

# EURO AREA—POTENTIAL SCENARIOS

| Scenarios | Probability |
|---|---|
| **Weakflation** Growth remains weak at just above 0 over the next year and inflation remains above target. Tighter financial conditions weigh on activity, adding to supply constraints related to the war and the associated energy shock. ECB hikes to c.3.75% in 2023 hurting growth and corporate profits. Risk assets perform reasonably well and rates remain elevated. | 40% |
| **Recession** Growth wanes due to weaker global demand, tighter credit conditions, and the cost-of-living crisis. Inflation falls as real incomes drop, supply chain strains ease, and energy supply shocks dissipate, allowing ECB to cut rates in 2023. Financial assets fall before recovering. Rates rally. | 25% |
| **Soft Landing** Growth and inflation moderate towards EA trend growth and 2% headline inflation target. Limited spillovers from U.S. slowdown and orderly normalisation of supply chains disruptions. Lower inflation allows ECB to pause. Favorable environment for long-term interest rates and risk assets. | 15% |
| **Nominal GDP boom** Growth remains resilient while inflation stays high. The ECB needs to raise rates aggressively in 2023 in order to bring inflation down. Rates curve flattens further, driven by the front end. Risky assets resilient. | 10% |
| **Stagflation** Growth weakens sharply and inflation remains very high. Negative shocks such as a credit crunch, higher conflict tension, supply chains strains, and EA fragmentation/debt dynamics risks materialize. ECB tightens further in 2023, exacerbating the recession. Rates selloff and risk assets perform poorly. | 10% |

# CHINA—POTENTIAL SCENARIOS

| Scenarios | | Probability |
|---|---|---|
|  | **Soft landing / Moderation**<br>Despite only moderate re-opening momentum and medium-term growth challenges, China stimulus helps deliver consensus growth expectations around 4.5-5.5% and inflation around 1.5%. Real estate woes and COVID risks are contained. China-linked assets rally. | **50%** |
|  | **Strong nominal GDP**<br>Growth surprises to the upside and inflation rises above trend, boosted by China policy stimulus, consumer demand linked to the re-opening, and a robust global economy. Authorities start considering policy withdrawal. China-linked assets rally. | **25%** |
|  | **Weakflation**<br>Growth weakens and inflation rises above 2%. Higher commodity prices and a weaker RMB push inflation higher. Policy stimulus is not enough to offset the headwinds of real estate and weaker exports. China-linked assets weaken. | **15%** |
|  | **Recession**<br>Growth continues to weaken rapidly due to weaker demand for Chinese exports (notably from the U.S. and the EA) and structural headwinds to growth (e.g. property sector fails to bottom out). Policy stimulus proves insufficient. Inflationary pressures remain minimal. China-linked assets weaken sharply. | **5%** |
|  | **Roaring 2020s**<br>Growth surprises to the upside and inflation stays low. Property stabilization coupled with the resultant pickup in consumer confidence and private investment support growth, but inflation remains low as total factor productivity rises as a result of infrastructure investment and other targeted supply policies. China-linked assets rally strongly. | **5%** |



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## INDEX DESCRIPTIONS

### U.S. INVESTMENT GRADE CORPORATE BONDS

**Bloomberg U.S. Corporate Bond Index:** The Bloomberg U.S. Investment Grade Corporate Bond Index covers U.S.D-denominated, investment-grade, fixed-rate or step up, taxable securities sold by industrial, utility and financial issuers. It includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.

### EUROPEAN INVESTMENT GRADE CORPORATE BONDS

Bloomberg European Corporate Bond Index (unhedged): The Bloomberg Euro-Aggregate: Corporates bond Index is a rules-based benchmark measuring investment grade, EUR denominated, fixed rate, and corporate only. Only bonds with a maturity of 1 year and above are eligible.

### U.S. HIGH YIELD BONDS

**ICE BofAML U.S. High Yield Index:** The ICE BofAML U.S. High Yield Index covers US dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, and at least one year remaining term to final maturity as of the rebalancing date.

### EUROPEAN HIGH YIELD BONDS

**ICE BofA European Currency High Yield Index:** This data represents the ICE BofA Euro High Yield Index value, which tracks the performance of Euro denominated below investment grade corporate debt publicly issued in the euro domestic or eurobond markets. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P, and Fitch). Qualifying securities must have at least one year remaining term to maturity, a fixed coupon schedule, and a minimum amount outstanding of €100 M. ICE Data Indices, LLC, used with permission. ICE DATA INDICES, LLC IS LICENSING THE ICE DATA INDICES AND RELATED DATA "AS IS," MAKES NO WARRANTIES REGARDING SAME, DOES NOT GUARANTEE THE SUITABILITY, QUALITY, ACCURACY, TIMELINESS, AND/OR COMPLETENESS OF THE ICE DATA INDICES OR ANY DATA INCLUDED IN, RELATED TO, OR DERIVED THEREFROM, ASSUMES NO LIABILITY IN CONNECTION WITH THEIR USE, AND DOES NOT SPONSOR, ENDORSE, OR RECOMMEND PGIM FIXED INCOME OR ANY OF ITS PRODUCTS OR SERVICES.

### U.S. SENIOR SECURED LOANS

**Credit Suisse Leveraged Loan Index:** The Credit Suisse Leveraged Loan Index is a representative, unmanaged index of tradable, U.S. dollar denominated floating rate senior secured loans and is designed to mirror the investable universe of the U.S. dollar denominated leveraged loan market. The Index return does not reflect the impact of principal repayments in the current month.

### EUROPEAN SENIOR SECURED LOANS

Credit Suisse Western European Leveraged Loan Index: All Denominations EUR hedged. The Index is a representative, unmanaged index of tradable, floating rate senior secured loans designed to mirror the investable universe of the European leveraged loan market. The Index return does not reflect the impact of principal repayments in the current month.

### EMERGING MARKETS U.S.D SOVEREIGN DEBT:

**J.P. Morgan Emerging Markets Bond Index Global Diversified:** The Emerging Markets Bond Index Global Diversified (EMBI Global) tracks total returns for U.S.D-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, and Eurobonds. It limits the weights of those index countries with larger debt stocks by only including specified portions of these countries' eligible current face amounts of debt outstanding. To be deemed an emerging market by the EMBI Global Diversified Index, a country must be rated Baa1/BBB+ or below by Moody's/S&P rating agencies. Information has been obtained from sources believed to be reliable, but J.P. Morgan does not warrant its completeness or accuracy. The Index is used with permission. The Index may not be copied, used, or distributed without J.P. Morgan's prior written approval. Copyright 2020, J.P. Morgan Chase & Co. All rights reserved.

### EMERGING MARKETS LOCAL DEBT (UNHEDGED)

J.P. Morgan Government Bond Index-Emerging Markets Global Diversified Index: The Government Bond Index-Emerging Markets Global Diversified Index (GBI-EM Global) tracks total returns for local currency bonds issued by emerging market governments.

### EMERGING MARKETS CORPORATE BONDS

**J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified:** The CEMBI tracks total returns of U.S. dollar-denominated debt instruments issued by corporate entities in Emerging Markets countries.

### EMERGING MARKETS CURRENCIES

**J.P. Morgan Emerging Local Markets Index Plus:** The JP Morgan Emerging Local Markets Index Plus (JPM ELMI+) tracks total returns for local currency–denominated money market instruments.

### MUNICIPAL BONDS

**Bloomberg Municipal Bond Indices:** The index covers the U.S.D-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. The bonds must be fixed-rate or step ups, have a dated date after Dec. 13, 1990, and must be at least 1 year from their maturity date. Non-credit enhanced bonds (municipal debt without a guarantee) must be rated investment grade (Baa3/BBB-/BBB- or better) by the middle rating of Moody's, S&P, and Fitch.

### U.S. TREASURY BONDS

**Bloomberg U.S. Treasury Bond Index:** The Bloomberg U.S. Treasury Index measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

### MORTGAGE BACKED SECURITIES

**Bloomberg U.S. MBS—Agency Fixed Rate Index:** The Bloomberg U.S. Mortgage Backed Securities (MBS) Index tracks agency mortgage backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage.

### COMMERCIAL MORTGAGE-BACKED SECURITIES

**Bloomberg CMBS: ERISA Eligible Index:** The index measures the performance of investment-grade commercial mortgage-backed securities, which are classes of securities that represent interests in pools of commercial mortgages. The index includes only CMBS that are Employee Retirement Income Security Act of 1974, which will deem ERISA eligible the certificates with the first priority of principal repayment, as long as certain conditions are met, including the requirement that the certificates be rated in one of the three highest rating categories by Fitch, Inc., Moody's Investors Services or Standard & Poor's.

### U.S. AGGREGATE BOND INDEX

**Bloomberg U.S. Aggregate Bond Index:** The Bloomberg U.S. Aggregate Index covers the U.S.D-denominated, investment-grade, fixed-rate or step up, taxable bond market of SEC-registered securities and includes bonds from the Treasury, Government-Related, Corporate, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS, and CMBS sectors. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.

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