FIXED INCOME MUSINGS

MACRO AT A GLANCE

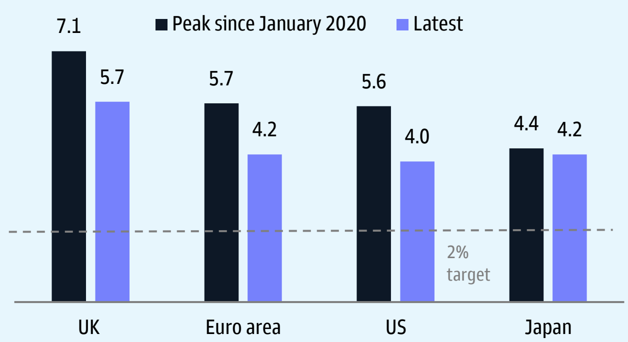
Lower inflation, lower bar to ease. Easing inflationary pressures continue to take hold across developed market economies, with the exception of Japan.

- **US:** The US remains ahead of its peers on disinflation progress with both headline and core CPI inflation falling below expectations in October.
- **UK:** Disinflation in the UK initially lagged its peers but has since been encouraging. October UK headline inflation fell below 5% for the first time in two years. Retail sales reached the lowest level since February 2021, pointing to the impact of higher rates and further disinflation ahead. Ongoing labor market rebalancing, easing wage growth and a stagnating economy should also help alleviate price pressures.

The recent disinflation progress confirms our view that the Fed, BoE and ECB have reached the end of their tightening cycle with the next move being rate cuts in 2024.

US leads its peers on the path to disinflation

Annual core CPI inflation (%)



Source: Goldman Sachs Asset Management, Macrobond. As of October 2023. Japan is as of September 2023.

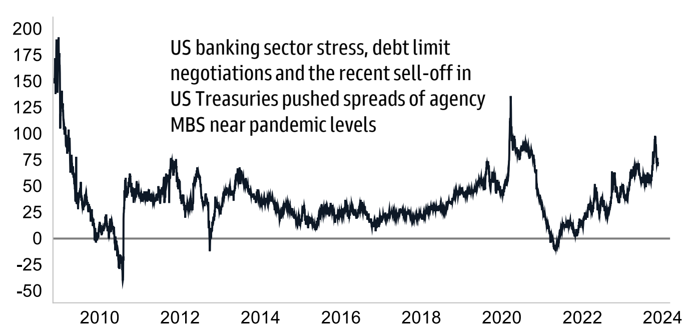
NAVIGATING FIXED INCOME

A difficult 2023 for mortgage-backed securities (MBS)… Higher rate volatility and a challenging demand backdrop has pushed agency MBS spreads to elevated levels.

…but better prospects in 2024. Ongoing disinflation should forge a more predictable path for monetary policy and dampen rate volatility. Limited new supply due to challenging affordability in the housing market may also provide a technical tailwind for the asset class. That said, Fed quantitative tightening (QT) and muted demand from banks may limit a return to the post-Covid tights for MBS spreads. We maintain our agency MBS overweight as spreads remain remarkably wide for an asset class that carries virtually no credit risk.

Agency MBS spreads are historically elevated

Option-adjusted spread (basis points)



Source: Goldman Sachs Asset Management, Macrobond. As of November 16, 2023.

TRACKING TREASURIES

Data-driven volatility. US Treasury yields fluctuated amid economic data releases:

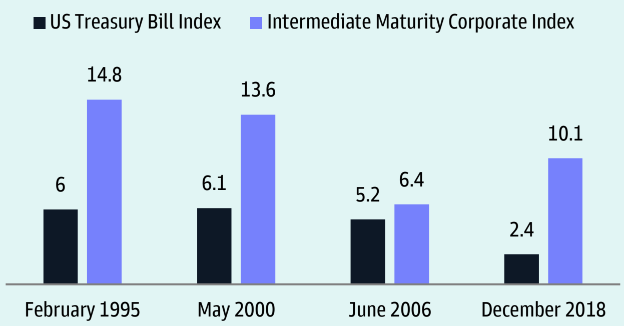
- **Lower US CPI inflation** in October prompted the largest decline in front-end US Treasury yields since March.
- **Firm retail sales** growth in October reignited the uptrend in yields.
- An **uptick in jobless claims**, **soft industrial production** and a **fall in oil prices** led to a downtrend in yields.

Many forces may influence the future path of yields and while the outlook remains uncertain, historical precedent points to positive returns in high quality fixed income in the year following a peak in the Fed's hiking cycle.

Potential upward forces on yields	Potential downward forces on yields
Hawkish Fed rhetoric	Dovish Fed rhetoric
Reacceleration in inflation	Weaker growth momentum
Government shutdown risks	Geopolitical volatility
Fiscal discipline concerns	

Positive returns in the year post Fed hiking cycles

12-month total return after conclusion of Fed's hiking cycle (%)



Source: Bloomberg, Goldman Sachs Asset Management. As of October 2, 2023.

LEARNINGS FROM EARNINGS

Balance sheet positions remain strong for investment grade (IG) companies; for example, interest coverage ratios remain healthy. We think IG companies are well positioned to withstand a higher-for-longer rate regime and believe credit rating downgrade activity will remain subdued. This benign credit outlook would be reinforced should higher rates enforce greater capital discipline among companies.

Consumer oriented companies benefitted from resilient spending. Demand for services and activities, such as travelling and dining out, continue to outpace goods. A key risk to monitor is the erosion of excess pandemic savings, especially for lower income households.

Regional divergence. US company earnings outpaced European counterparts reflecting divergent economic backdrops. We are closely monitoring the impact of higher rates on loan-only and highly leveraged debt issuers. In our view, balance sheets will remain relatively resilient despite default activity trending modestly higher from a low starting level; nonetheless, active management remains key as we progress further into a higher rate regime.

Q3 2023 earnings highlights

15th Percentile ranking of interest expense to total debt for US IG-rated companies based on data since 1998, reflecting good debt servicing capacity relative to history[1]

69% Share of high yield companies that provided in-line or better-than-expected forward guidance[2]

Source: Goldman Sachs Asset Management. [1] FactSet, Goldman Sachs Global Investment Research 2024 Global Credit Outlook: Back in the saddle (13 November 2023). [2] Based on consensus from Bloomberg. As of November 10, 2023.

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CENTRAL BANK SNAPSHOT

	Interest Rate Policy	Balance Sheet Policy	Outlook	Our outlook relative to market-implied pricing
Fed	Federal funds rate: 5.25-5.5% Prior changes: July, May, March, February 2023 (+25bps) December 2022 (+50bps) June, July, September and November 2022 (+75bps) May 2022 (+50bps) March 2022 (+25bps)	The monthly pace of net asset purchases was reduced from November 2021 and ended in March 2022. Since June 2022, the Fed has engaged in balance sheet runoff.	We believe the Fed will leave policy unchanged into 2024. However, rising oil prices could renew upside inflation risks while a sharp economic slowdown could accelerate the timeline for rate cuts. Expected terminal rate: 5.25-5.5%	Neutral
ECB	Deposit facility rate: 4% Prior changes: September, July, June, May 2023 (+25bps) March, February 2023 and December 2022 (+50bps) September and October 2022 (+75bps) July 2022 (+50bps), the first hike since 2011	The ECB's balance sheet unwind began on March 1, 2023. The decline will amount to EUR 15bn per month on average until the end of the second quarter of 2023 and its subsequent pace will be determined over time. The anti-fragmentation tool, the Transmission Protection Instrument (TPI), unveiled in July 2022 will be used to ensure monetary policy is transmitted smoothly across all euro area countries.	We believe a rate cut will occur sometime in 2024. A sharp economic slowdown or larger-than-expected deterioration in the labor market could prompt earlier policy easing. Expected terminal rate: 4.0%.	Neutral
BoE	Bank Rate: 5.25% Prior changes: August 2023 (+25bps) June 2023 (+50bps) May, March 2023 (+25bps) February 2023 and December 2022 (+50bps) November 2022 (+75bps) August and September 2022 (+50bps) February, March, May, June 2022 (+25bps) December 2021 (+15bps)	In September/October 2022, the BoE temporarily purchased long-dated UK gilts and postponed active gilt sales; in November 2022 the BoE commenced active sales and an unwind of the temporary purchases. The pace of quantitative tightening was increased in September 2023.	Our base case expectation is that the BoE will now leave rates on hold for an extended period, with the next move being a cut sometime in 2024. Expected terminal rate: 5.25%	Dovish
BoJ	Policy deposit rate: -0.10% Prior changes: Suspension of fixed-rate purchase operations. 1% upper bound of 10-year JGB yield is a 'reference' and removal of -/+50bps tolerance band. Fixed-rate purchase operations: Increased from 0.5% to 1% 10-year JGB yield target: ~0%, with tolerance band of -/+50bps (yield curve control policy) January 2016, when the Bank introduced its negative interest rate policy (NIRP)	Following the December 2022 meeting, the BoJ has stepped up their defence of the new +0.5% YCC upper band by significantly increasing regular and ad-hoc Japanese Government Bond purchases along the yield curve. Targets for ETF, corporate bond and other risk asset purchases remain in place but in practice there have been limited recent buying.	We are gaining conviction that strength in domestic inflation will lead to YCC being further weakened or abandoned. We also expect negative rates to be removed in the coming quarters, potentially followed by a number of rate hikes into positive territory.	Hawkish

Source: Goldman Sachs Asset Management. As of November 2, 2023. The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this presentation.

SOVEREIGN BOND YIELDS (%)

	Latest	6 months ago	12 months ago
US 2 Year	4.9	4.1	4.4
US 10 Year	4.5	3.5	3.7
US 2-10 Slope	-0.4	-0.5	-0.7
US Treasury 10-Year Inflation-Protected	2.2	1.4	1.4
Germany 2 Year	3.0	2.6	2.1
Germany 10 Year	2.6	2.3	2.0
Japanese 10 Year	0.8	0.4	0.2
UK 10 Year	4.3	3.8	3.1
Chinese 10 Year	2.7	2.7	2.8

Source: Macrobond, Goldman Sachs Asset Management. As of 16 November 2023.

EXCHANGE RATES

	Latest	6 months ago	12 months ago
Euro (€ per $)	0.92	0.92	0.96
British Pound (£ per $)	0.80	0.80	0.84
Japanese Yen (¥ per $)	150.89	136.48	139.35
Chinese Yuan Renminbi (CNY per $)	7.25	6.98	7.09

Source: Macrobond, Goldman Sachs Asset Management. As of 16 November 2023.

FIXED INCOME SECTOR YIELDS (%)

	Latest	Last 10 year average	Last 10 year Percentile
US Investment Grade	6.0	3.4	98.0
European Investment Grade	4.3	1.4	94.6
UK Investment Grade	5.9	3.1	94.2
US High Yield	8.7	6.4	91.9
European High Yield	7.3	4.2	91.0
EM External	9.0	6.1	97.1
EM Corporate	7.6	5.3	96.7
US Agency MBS	5.6	2.8	98.7
US ABS	6.3	2.5	98.7
US Munis	4.1	2.3	97.9
US CMBS	5.3	2.5	98.6

Source: Macrobond, Goldman Sachs Asset Management, ICE BofAML and J.P. Morgan. As of 16 November 2023.

FIXED INCOME SECTOR SPREADS (BASIS POINTS)

	Latest	12 months ago	Last 10 Year Percentile
US Investment Grade	122	148	39.4
European Investment Grade	145	189	78.3
UK Investment Grade	149	210	55.4
US High Yield	389	464	38.1
European High Yield	440	509	68.3
EM External	427	483	79.5
EM Corporate	314	386	36.1
US Agency MBS	73	40	92.4
US ABS	130	169	84.9
US CMBS	60	68	73.6

Source: Macrobond, Goldman Sachs Asset Management, ICE BofAML and J.P. Morgan. As of 16 November 2023.

ADDITIONAL FIXED INCOME INSIGHTS

Musings

November 10, 2023

November 3, 2023

October 27, 2023

October 20, 2023

Navigating Fixed Income

Navigating Disinflation: The Case for EM Local Bonds

Navigating EM External Debt: Earning Carry, Finding Alpha

Navigating Investment Grade Credit with Goldman Sachs Asset Management

Navigating Opportunities in Investment Grade Credit

Navigating External EM Debt

Navigating The EM Corporate Bond Market

Navigating Short Duration Opportunities

Fixed Income Outlook

Q4 2023 Outlook: Turning Cautious

Q3 2023 Outlook: Resilience and Risk

Q2 2023 Outlook: Quality Control

Q1 2023 Outlook: Bring on Bonds

Asset Management Insights

Asset Management Perspectives: Coming into Focus

- Introduction
- Forces of Change: Investing in a World of Cyclical and Structural Drivers
- Triple A to Triple Threat: US Debt Sustainability, Serviceability, and Geopolitical Risks
- Taking The High Road: Investing In A Higher-for-Longer Rate World
- Japan's Economic Revival and the Road Ahead

Risk Consideration

Investments in fixed income securities are subject to the risks associated with debt securities generally, including credit, liquidity, interest rate, prepayment and extension risk. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. The value of securities with variable and floating interest rates are generally less sensitive to interest rate changes than securities with fixed interest rates. Variable and floating rate securities may decline in value if interest rates do not move as expected. Conversely, variable and floating rate securities will not generally rise in value if market interest rates decline. Credit risk is the risk that an issuer will default on payments of interest and principal. Credit risk is higher when investing in high yield bonds, also known as junk bonds. Prepayment risk is the risk that the issuer of a security may pay off principal more quickly than originally anticipated. Extension risk is the risk that the issuer of a security may pay off principal more slowly than originally anticipated. All fixed income investments may be worth less than their original cost upon redemption or maturity.

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Emerging markets investments may be less liquid and are subject to greater risk than developed market investments as a result of, but not limited to, the following: inadequate regulations, volatile securities markets, adverse exchange rates, and social, political, military, regulatory, economic or environmental developments, or natural disasters.

When interest rates increase, fixed income securities will generally decline in value. Fluctuations in interest rates may also affect the yield and liquidity of fixed income securities.

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High-yield, lower-rated securities involve greater price volatility and present greater credit risks than higher-rated fixed income securities.

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The indices referenced herein have been selected because they are well known, easily recognized by investors, and reflect those indices that the Investment Manager believes, in part based on industry practice, provide a suitable benchmark against which to evaluate the investment or broader market described herein. The exclusion of "failed" or closed hedge funds may mean that each index overstates the performance of hedge funds generally.

Sector Spread Indexes

US Investment Grade Corporates: ICE BofAML US Corporate Index

US High Yield Corporates: ICE BofAML US Corporate High Yield Index

European Investment Grade Corporates: ICE BofAML Euro Corporate Index

European High Yield Corporates: ICE BofAML Euro High Yield Index

ABS: ICE BofAML US Fixed Rate Asset-Backed Securities Index

MBS: ICE BofAML US Agency Mortgage-Backed Securities Index

CMBS: ICE BofAML US Fixed Rate Commercial Mortgage-Backed Securities Index

EM External Debt: J.P. Morgan, EMBI Global Diversified Face Constrained Index

Past performance does not guarantee future results, which may vary. The value of investments and the income derived from investments will fluctuate and can go down as well as up. A loss of principal may occur.

Abbreviations: US Federal Reserve (Fed), European Central Bank (ECB), Bank of England (BoE), Bank of Japan (BoJ), Swiss National Bank (SNB), Central Bank of Sweden (Riksbank), Reserve Bank of New Zealand (RBNZ), Central Bank of Norway (Norges Bank) Bank of Canada (BoC), Reserve Bank of Australia (RBA), Quantitative Easing (QE), Quantitative Tightening (QT), Pandemic Emergency Purchase Program (PEPP), Consumer price index (CPI), producer price index (PPI), developed markets (DM), emerging markets (EM), Japanese Government Bond (JGB). Mortgage-backed securities (MBS), Asset-backed securities (ABS).

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