Goldman Sachs | Portfolio Strategy Research

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GOAL: Global Opportunity Asset Locator

Outlook for 2024: Time for balance - modest returns, better diversification

- We are neutral in our asset allocation for 2024 (N equities, bonds, credit, commodities & cash) and focus on diversification with modest expected returns. We would aim to be fully invested after being OW cash for the last two years.
- Bond yields are higher, making fixed income more attractive (we recently shifted to N after being UW for nearly three years). We see more value in being balanced again in multi-asset portfolios, with bonds likely to buffer growth shocks owing to continued inflation normalisation. Even without growth shocks, bond yields have likely peaked, and our economists think most central banks will start cutting rates next year, albeit slowly. This should trigger more deployment of cash into bonds and equities with US$8 tn currently in money market funds.
- Risk premia are lower and a late-cycle backdrop reduces the incentive to move up the risk curve. In contrast to the start of 2023, sentiment and positioning is more bullish, with investors pricing a higher likelihood of a soft landing with continued inflation normalisation. While we expect further improvement in the global growth/inflation mix, near term it might be more mixed.
- Rates relief has triggered a powerful 'bad news is good news' rally in Q4 - upward pressure on longer-dated rates had weighed on risky assets after the summer with little buffer from risk premia. However, the recent rally increases the risk of disappointment in the near term, either because markets shift to 'bad news is bad news' as growth is too weak, or in the case of renewed rate shocks. This might create opportunities to further deploy cash.
- While rates volatility is likely to ease in 2024, growth volatility and geopolitical risks might keep risky asset volatility elevated. We think commodities remain an important diversifier for escalating tensions in the Middle East and European energy crisis risk. After the recent vol reset, we look for attractive short-term hedges and revisit related carry strategies. We also think there remains a case for selective allocations to alternatives in a 'higher-for-longer' world, with potential diversification benefits and increased focus on alpha vs. beta.

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Table of Contents

Asset allocation: Modest returns, better diversification	3
Multi-asset: Time for balance - less duration frustration	6
Multi-asset positioning: Cash out, bonds (and some equities) in	18
Multi-asset volatility: Cross-asset vol reset allows for selective hedges	21
Equities (3m N & 12m N): Home on the Range	25
Government Bonds (3m N & 12m N): Lower, But Not Low	29
Credit (3m N & 12m N): Back in the saddle	35
Commodities (3m N & 12m N): Three Reasons to Go Long Commodities	39
FX: Living in a Dollar World	42
Calendar: Key events in 2024	46
Asset class forecast returns and performance	47
Key macro forecasts	48
Disclosure Appendix	49

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Asset allocation: Modest returns, better diversification

We are neutral in our broad asset allocation for 2024 and focus on diversification with modest expected returns. We aim to be fully invested again in our benchmark portfolio after being OW cash for two years. Bond yields are higher, making fixed income more attractive. Risk premia are lower, and a lingering late-cycle backdrop reduces the incentive to move up the risk curve.

We see more value in being balanced again in multi-asset portfolios, with bonds likely to buffer growth shocks owing to continued inflation normalisation. Even without growth shocks, bond yields have likely peaked: our economists think most central banks will start cutting rates next year, albeit slowly. Geopolitical risks are elevated, and as such commodities remain an important diversifier.

Exhibit 1: We are Neutral in our asset allocation - modest returns and more benefits from diversification

3-Month Horizon		12-Month Horizon	
Asset Class	**Weight***	**Asset Class**	**Weight***
Commodities	N	**Commodities**	N
Credit	N	**Equities**	N
EUR HY	→	*TOPIX*	↑
USD HY	→	*S&P 500*	→
EMBI	→	*MSCI Asia Pac ex Japan*	→
EUR IG	→	*STOXX Europe 600*	→
USD IG	→	**Credit**	N
Equities	N	*EMBI*	→
TOPIX	↑	*USD HY*	→
MSCI Asia Pac ex Japan	↑	*EUR HY*	→
S&P 500	→	*USD IG*	→
STOXX Europe 600	→	*EUR IG*	→
10 yr. Gov. Bonds	N	**10 yr. Gov. Bonds**	N
UK	↑	*UK*	↑
Germany	↑	*Germany*	↑
US	→	*US*	→
Japan	↓	*Japan*	↓
Cash	N	**Cash**	N

** Arrows denote preferences within asset classes.*

Source: Goldman Sachs Global Investment Research

N equities with modest returns expected, driven by earnings growth and dividend yield but limited valuation expansion. We expect equities will remain in the 'fat and flat' range they have been in since 2022. Even though absolute equity valuations, at least excluding US large cap tech, are not high, equity risk premia are low and should provide a speed limit for returns. With elevated profit margins, we forecast single-digit growth in all regions other than Asia, where earnings are recovering from a low base. On the positive side, corporates are buying back shares and corporate balance sheets remain strong. Additionally, a buffer from rates reduces the downside risk, while earlier-than-expected rates relief creates upside risks for equities. For 3m we are OW Asia, both China and Japan, due to a different cycle position, while for 12m our favourite region is Japan, supported by domestic reflation and governance reform momentum.

Key Ideas: *Position for US exceptionalism (beaten-down US cyclicals, US exposure outside the US), shareholder returns, quality/ avoid weak balance sheets, growth stocks and selective structural opportunities.*

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N bonds with higher yields pointing to attractive total returns and more of a buffer for growth shocks. After the November rally, near-term return potential is more limited. Most G10 ex-Japan yields should end 2024 close to or slightly below current levels; 10y USTs / Bunds YE24 at ~4.55% / 2.25%. Elevated inflation and low unemployment set a higher bar for deep 'normalization' rate cuts, while term premia could remain sticky given bond supply and fiscal concerns. Hiking cycles have likely ended across G10 economies ex-Japan, but the degree of policy easing priced in markets is too large and too early, we believe. We are OW German/UK, N US, and UW Japan 10-year bonds. Lower core rates should help EMU sovereign spreads tighten but Italian BTP spreads might remain wider owing to debt sustainability concerns.

Key Ideas: *US-EU inflation spread via 2y2y HICP vs US CPI, or 5y in spot rates, sell 6m2y USD straddles versus a vega-neutral amount of 6m2y EUR straddles.*

N credit with relatively tight credit spreads and peak credit quality behind us. We expect lower carry-driven excess returns vs. 2023 given current valuations, but higher total returns, considering the stronger yield support. We are neutral IG vs. HY and also EUR vs. USD spreads, as well as EMBI, which might be a good diversifier for US growth risk. We expect the USD HY 12m default rate to peak at 4.6% through 1H2024, slightly above the long-run average of 4%, before settling to 3.5% for the full year. For EUR HY, we expect a similar pattern with a peak default rate of 3.6% and a decline to 3.2% until YE 2024. Thematically, our relative value views are centered on owning oversold left tail risks as well as markets that have been dislocated for technical reasons.

Key Ideas: *Banks in the USD IG market, the real estate sector in the EUR IG market, agency MBS, new issue BBB-rated CMBS, and middle-market AAA-rated CLOs.*

N commodities as we still see attractive return potential and diversification benefits in the event of further geopolitical shocks and energy price shocks. We forecast 12m total returns of 21% for GSCI and expect Brent to rise to a 2024 average of $92/bbl, with prices back up to the higher end of the $80-100 range. We believe that fading monetary policy drag, receding recession fears, and reduced industrial destocking will support demand and commodity prices in 2024. We expect structural support to commodity returns from OPEC carry, refinery tightness, and green metals demand. However, elevated OPEC spare capacity is also likely to limit the upside to spot prices.

Key Ideas: *Long GSCI energy ex US natural gas, long GSCI industrial metals ex nickel, zinc, monetize Jun24 Brent in a 73-112 range with options, Long Feb24 TTF.*

We do not expect Dollar strength to erode quickly but elevated valuations and more balanced global growth point to gradual depreciation. A resilient cyclical picture in the US, support from capital flows, and a lack of clear challengers abroad suggest a bumpy path on a shallow Dollar depreciation trajectory. Faster inflation normalisation with weaker activity and risk of energy price shocks open the potential for earlier and more rapid rate cuts in Europe. Safe haven FX such as the Yen and CHF are likely to continue to struggle vs. the Dollar but can outperform vs. other FX - we like CHF/EUR. EM FX valuations are less cheap and prospects depend on the Dollar.

Key Ideas: *Long CHF/SEK, short MYR/THB & TWD/KRW, long LatAM high-yielding FX.*

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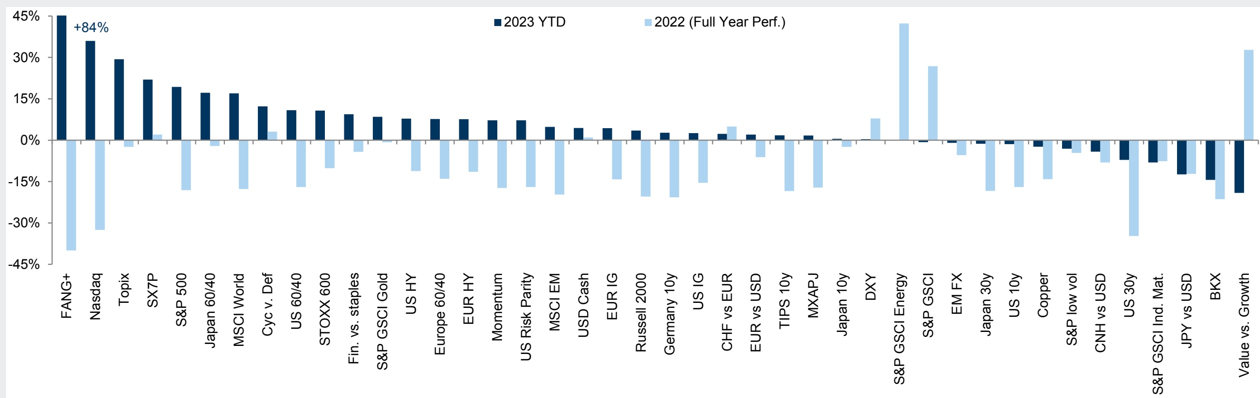
Review of 2023: More duration frustration with re-rating of cyclical and structural growth

2023 turned out to be a better year for performance across assets after the ‘bear market in everything’ in 2022, owing to valuation de-rating as US real yields increased sharply. While there were setbacks in Q1, due to the regional US banks crisis, and in Q3 from the sell-off in long-dated bonds, DM equities have posted modest positive returns. EM/Asian equities lagged while US equities materially outperformed, despite continued upward pressure on real yield yields, helped by AI optimism boosting the FANG+ or ‘Magnificent Seven’. After a strong 2022, commodities posted relatively flat returns in 2023. Much in contrast to last year, value underperformed.

Exhibit 2: Better cross-asset performance in 2023 after a difficult 2022

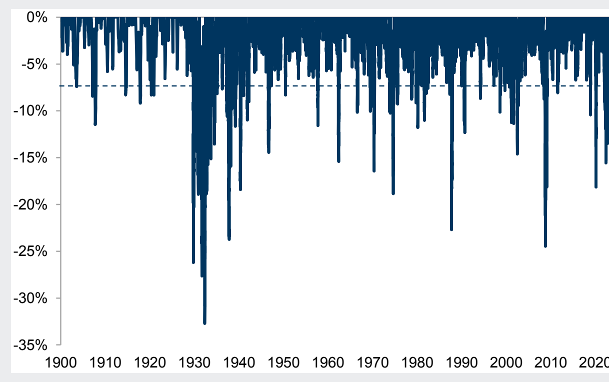


Source: Bloomberg, Datastream, Goldman Sachs Global Investment Research

During the summer, with the US yield curve bear steepening sharply, equities sold off alongside bonds again – the equity/bond correlation turned sharply positive and 60/40 portfolios had another large drawdown (Exhibit 3). This followed 2022, when 60/40 portfolios already had one of their largest drawdowns in the last 100 years. Since end-2021 (including the recent drawdown), a US 60/40 portfolio is still down more than 20% in real terms (Exhibit 4). In several markets, where the equity recovery has been less strong than in the US (boosted by its Tech stocks), real drawdowns have been even larger.

Exhibit 3: A US 60/40 portfolio had another 7% drawdown after the summer

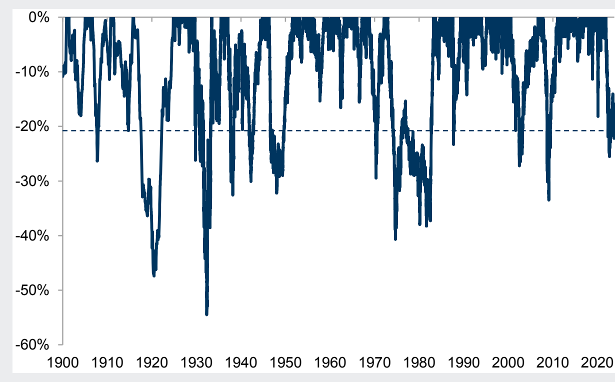
Maximum 3-month total return 60/40 nominal drawdown (daily data where available)



Source: Datastream, Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 4: The cumulative real drawdown of a US 60/40 portfolio remains large, increasing risk of a lost decade

Maximum 10-year total return real 60/40 drawdown (daily data where available)



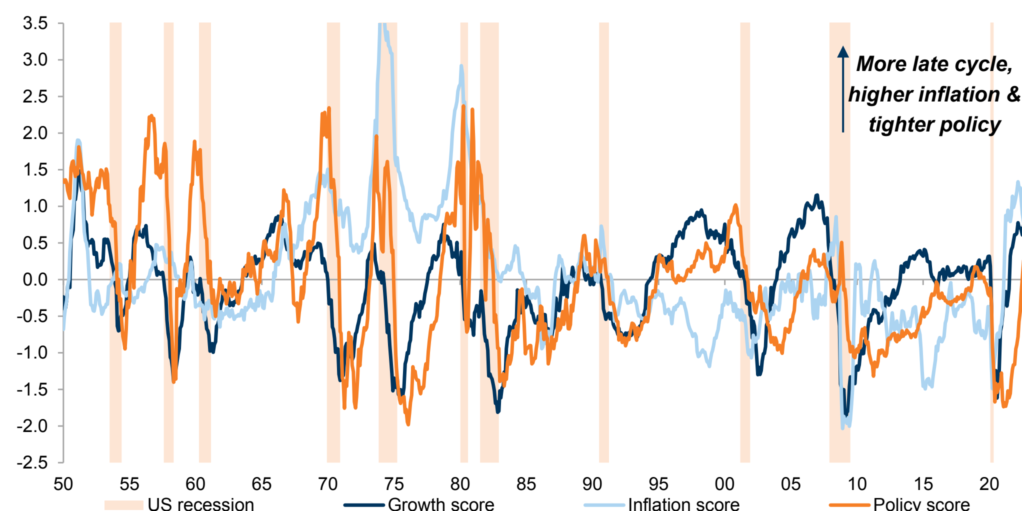
Source: Datastream, Haver Analytics, Goldman Sachs Global Investment Research

Multi-asset: Time for balance - less duration frustration

(1) From inflation normalisation to policy moderation

The US economy surprised most investors and forecasters to the upside in 2023 in terms of both better growth and inflation normalisation. In the first half of the year the US had an 'inverse' Goldilocks backdrop where, despite a late-cycle position, inflation declined and growth remained resilient - our US business cycle scores show how unusual this has been since 1950 (Exhibit 5). Historically such a large decline in our inflation score would have come with more growth damage (and eventually triggered a dovish policy pivot with declines in our policy score). In contrast, resilient US growth forced markets to reprice towards a 'higher rates for longer' regime in Q3, and our policy score remains at one of the highest levels since the 1980s.

Exhibit 5: Growth, inflation and policy can have disconnects through the business cycle
Average expanding z-score of macro and market variables across growth, inflation, and policy



Source: Haver Analytics, Bloomberg, Datastream, Goldman Sachs Global Investment Research

The global growth/inflation mix was more mixed, but also improved in aggregate - we expect further improvement in 2024 (Exhibit 6). European growth weakened in 2023, and after a strong start to the year China growth has also been weaker-than-expected. Despite this, global labour markets remained strong, supporting real income growth. This, coupled with less drag from monetary and fiscal policy, and a pick-up in global manufacturing, drive our economists' above-consensus global growth forecast for 2024. The downtrend on inflation has been more consistent - global core inflation for G10 economies (ex Japan) and EM early hikers halved from 6% at the end of 2022 to 3% now. Our economists expect further disinflation in 2024, with US core CPI reaching 2.2% by the end of 2024 (core PCE at 2.5%).

While in 2023 the interaction of inflation and growth was key, in 2024 we believe the interaction between policy and growth will be critical. Markets pricing 'higher-for-longer' has resulted in more tightening of financial conditions from August through to early November, despite the progress on inflation normalisation. Since then, bond markets have rallied with investors pricing earlier rate cuts, triggering cross-asset

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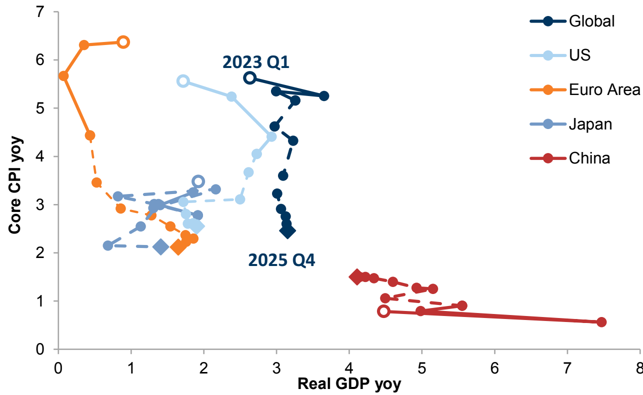
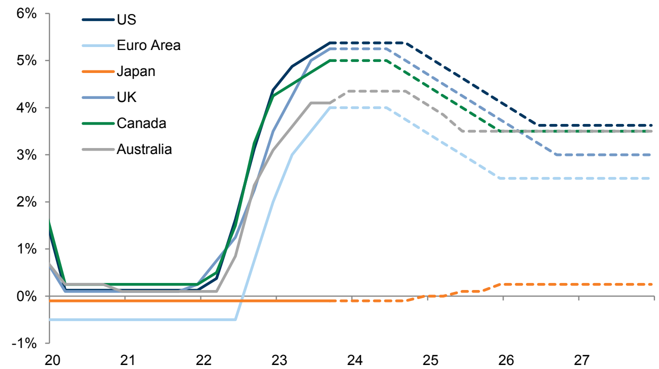
relief. However, this increases the risk of disappointment, as easier financial conditions with stronger growth or stickier inflation might force more hawkish central bank pricing again. Our economists expect only gradual DM rate cuts from Q3 2024 onwards, barring a weaker-than-expected growth outcome (Exhibit 7).

Exhibit 6: More disinflation with US/Europe growth convergence and Asia decoupling



Source: Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 7: Our economists expect no more rate hikes and gradual cuts starting in H2 2024

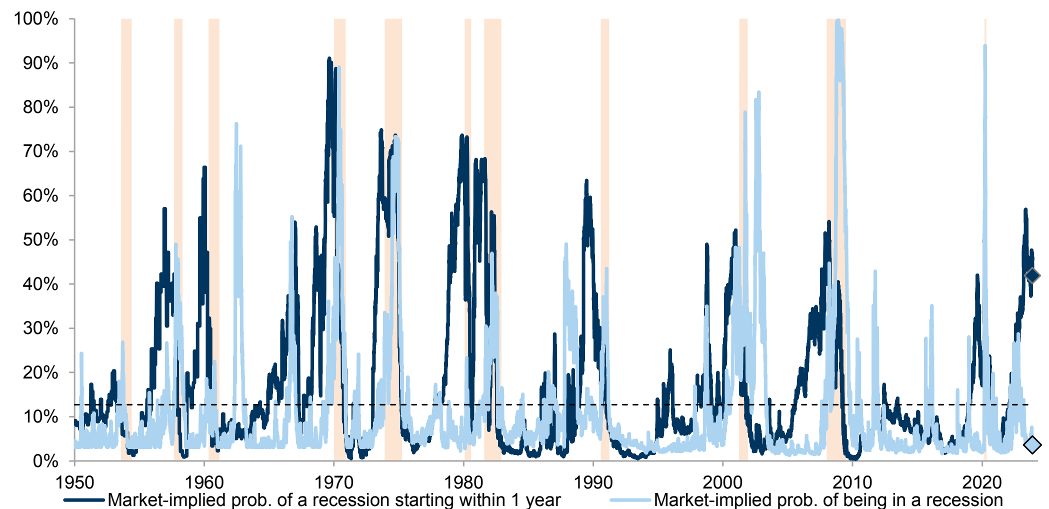


Source: Goldman Sachs Global Investment Research

(2) From recession obsession to 'higher for longer'

Our friendly, above-consensus growth outlook points to slower monetary policy easing than markets might hope. Our economists continue to see a relatively low risk of a US recession in 2024: their 12-month ahead probability is 15% vs. 50% from the median forecaster. Our market-implied recession probability of a US recession in the next 12 months has declined from its peak at 60% to 40%-45% (Exhibit 8). Risky assets repriced recession risk more immediately, with a strong rally in Q2, while upward pressure on long-dated bond yields continued in 2H 2023.

Exhibit 8: The market-implied US recession probability has declined to 40%-45%
Orange shading: US recession. Dotted line: unconditional probability



Source: Datastream, Haver Analytics, Worldscope, Goldman Sachs Global Investment Research

With lower recession risk, markets priced fewer Fed cuts in the next 12 months and yield curves steepened from deeply inverted levels (Exhibit 9). Our economists

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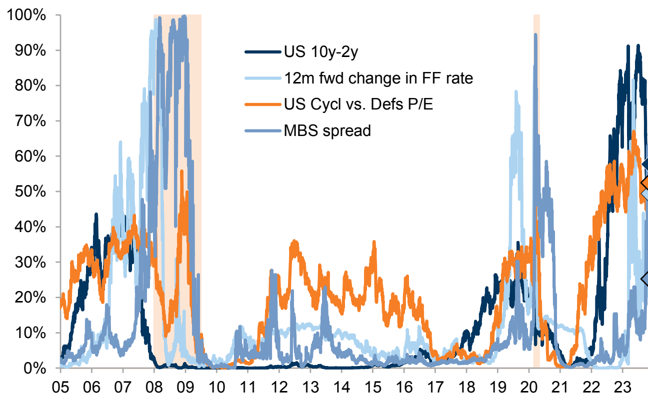
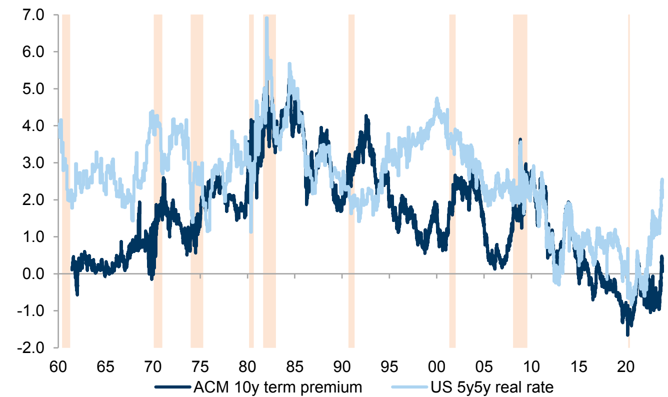
now expect policy rates to settle at higher levels, in large part due to larger fiscal deficits, more investment demand (e.g., owing to decarbonisation), and fewer post-GFC headwinds - they have raised their long-run policy rate forecasts by 50bp to 3.5%-3.75% in the US, and by 50bp to 2.5% in the Euro Area, 50bp to 3.0% in the UK, with similar upgrades for other economies. Markets have already repriced 5y5y real rates higher, closer to the pre-GFC average and in addition, there has been upward pressure on bond term premia, in part owing to concerns on bond supply/demand imbalances (Exhibit 10).

Exhibit 9: Key recession indicators are pricing a similar probability - at the beginning of 2023 the yield curve was too inverted
Market-implied recession probability for the next 12 months



Source: Bloomberg, Haver Analytics, Datastream, Goldman Sachs Global Investment Research

Exhibit 10: Longer-dated rates are settling at a higher equilibrium
Orange shading: US recession

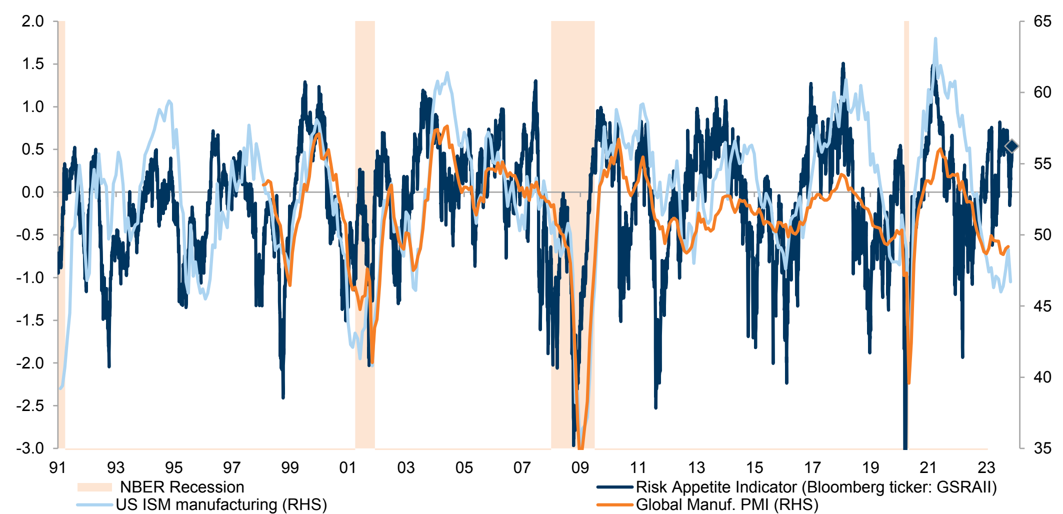


Source: Haver Analytics, Bloomberg, Goldman Sachs Global Investment Research

(3) Less risk appetite drag from rates, more focus on growth

Movements in bond yields have been the key driver of risk appetite in 2H 2023. Our Risk Appetite Indicator (RAI) was elevated relative to the soft data in 1H 2023, supported by better services data, strong US growth and optimism around AI, as well as continued disinflation (Exhibit 11). Much in contrast to low levels of risk appetite, an elevated RAI is not a contrarian signal but it does increase the risk of disappointment.

Exhibit 11: Risk appetite has recovered with recent rates relief



Source: Haver Analytics, Datastream, Goldman Sachs Global Investment Research

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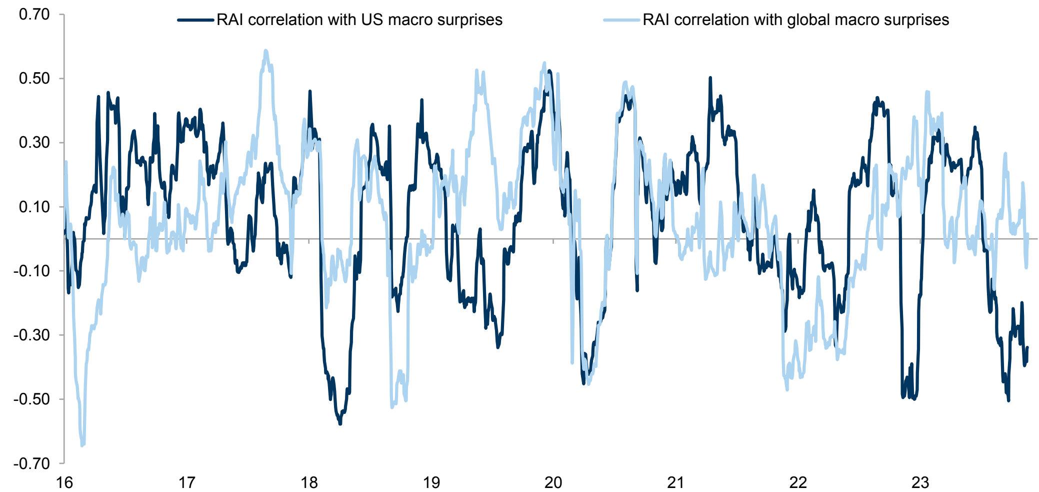
During the summer our RAI declined sharply, not because of disappointment on growth, but owing to rising long-dated rates. As a result, markets shifted to 'bad US news is good news' and 'good global news is good news' regimes (Exhibit 12). With still-elevated US inflation and higher bond supply, tight labour markets and above-trend growth, investors became increasingly concerned about pressures on long-term rates. Eventually, this would weigh on global growth, especially as growth outside the US has been much weaker.

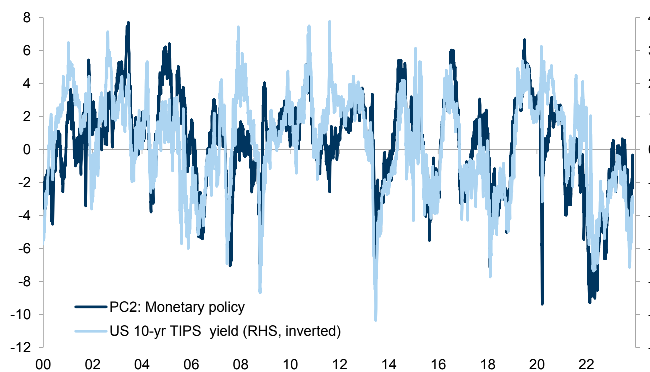
Exhibit 12: Good US macro data has weighed on risk appetite in 2H
3-month correlation with macroeconomic surprises



Source: Datastream, Haver Analytics, Goldman Sachs Global Investment Research

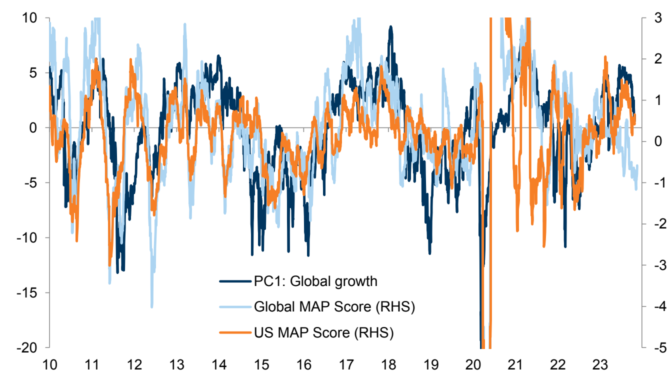
The drag on risk appetite from rising US real yields this year was significant - our 'RAI PC2: Monetary policy' factor turned deeply negative (Exhibit 13). Recent declines in rates triggered a powerful 'bad news is good news' rally in November. However, further relief from rates might be limited in the near term, and there is risk of disappointment, either because of renewed rate shocks or as markets shift to 'bad news is bad news' due to weak growth. There is currently less support for growth sentiment ('RAI PC1'), with global macro surprises broadly negative and US macro surprises also turning less positive (Exhibit 14).

Exhibit 13: A reset in duration and monetary policy



Source: Datastream, Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 14: Growth pricing has overshot global macro surprises



Source: Datastream, Haver Analytics, Goldman Sachs Global Investment Research

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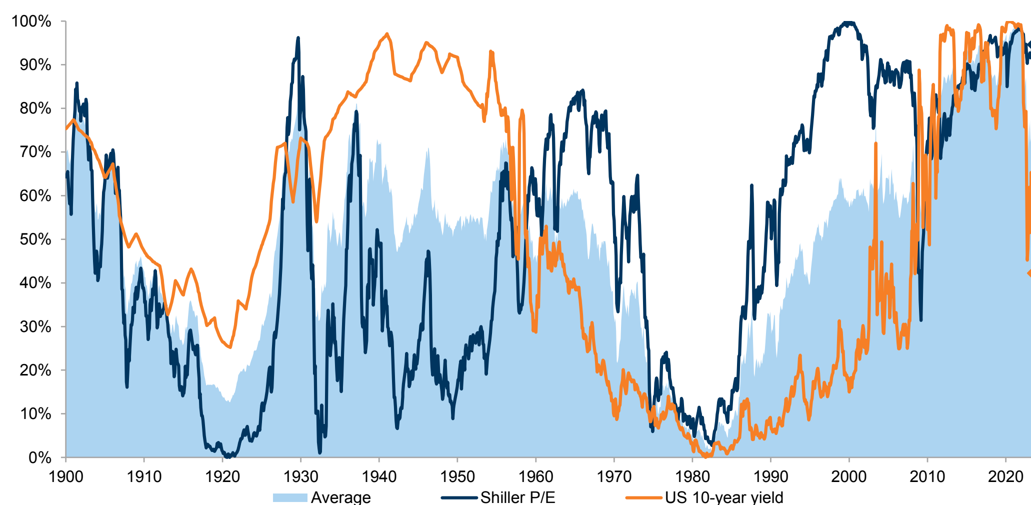
(4) Less valuation frustration but low equity risk premia

The combined valuation starting point for an investor in a 60/40 portfolio has improved in the last two years (Exhibit 15). At the end of 2021, we wrote that balanced portfolios were likely to deliver lower real returns and have more frequent, larger drawdowns in the coming years, owing to the elevated valuations of both bonds and equities post the COVID-19 recovery, and high and rising inflation - a break from the previous lowflation regime. After the large, sustained sell-off since last year bonds are much cheaper. Current US 10-year yields are near the 300-year average of 4.6% (excluding the 1970s results in an average of 4.4%). This suggests bonds should be less of a drag on 60/40 portfolio returns going forward.

Exhibit 15: While equities remain relatively expensive, bond yields are now above the LT average
Valuation percentile (since 1871); a higher percentile means valuations are more expensive

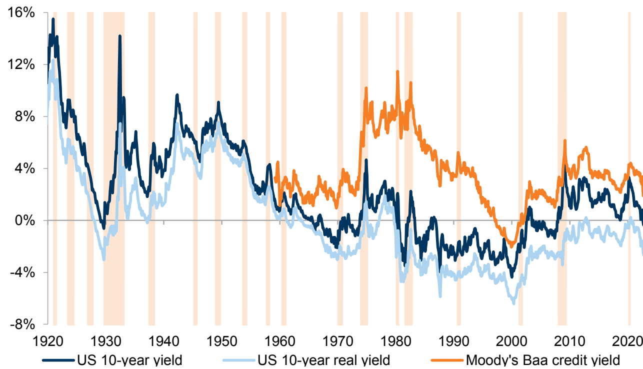


Source: Robert Shiller, Haver Analytics, Goldman Sachs Global Investment Research

US equity valuations remain elevated but this is mostly due to large cap US Tech stocks - non-US valuations are closer to LT averages. Bonds still appear more attractive relative to equities, similar to the 1960s and 1990s, and the equity/bond yield gap has narrowed further YTD (Exhibit 16). However, equity valuations alone are not a good market timing indicator, especially if they are supported by macro conditions. Low equity risk premia can at least in part be explained by the macro backdrop - late-cycle risk premia tend to compress, owing to favourable fundamentals. In addition, elevated inflation and central bank tightening has made bonds riskier than equities, especially with fading recession risk and resilient corporate fundamentals.

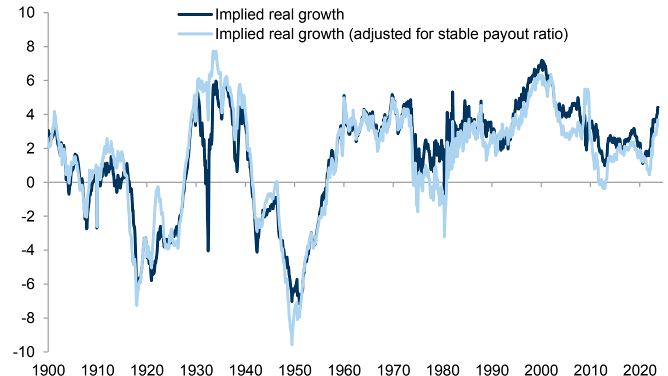
Lower risk premia also reflect a structural shift to more-profitable, quality growth stocks within equity indices. Long-term S&P 500 growth expectations have likely been boosted by optimism on the growth impact of AI - the same was true in the 1960s and 1990s, when productivity growth was high. Based on a single-stage dividend discount model, S&P 500 LT implied real growth near 4.5% is well above its average of 2.6% since 1950 (Exhibit 17). Assuming the same payout ratios since 1900 (a lot of US tech stocks do not pay dividends) results in lower implied real growth of 3.7%. This remains well below Tech bubble peaks - we do not think AI has driven a stock bubble.

Exhibit 16: The equity/bond yield gap has shifted below LT averages reaching levels last seen in the 1960s and 1990s
Gap between S&P 500 Shiller earnings yield and different bond yields. Orange shading: US recession.



Source: Robert Shiller, Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 17: Implied LT growth has picked up materially but is near LT averages, especially when adjusting for payout ratios
LT real growth = ERP + 10-year yield – Dividend yield - 10-year breakeven inflation (assuming an ERP of 4%)



Source: Robert Shiller, Haver Analytics, Goldman Sachs Global Investment Research

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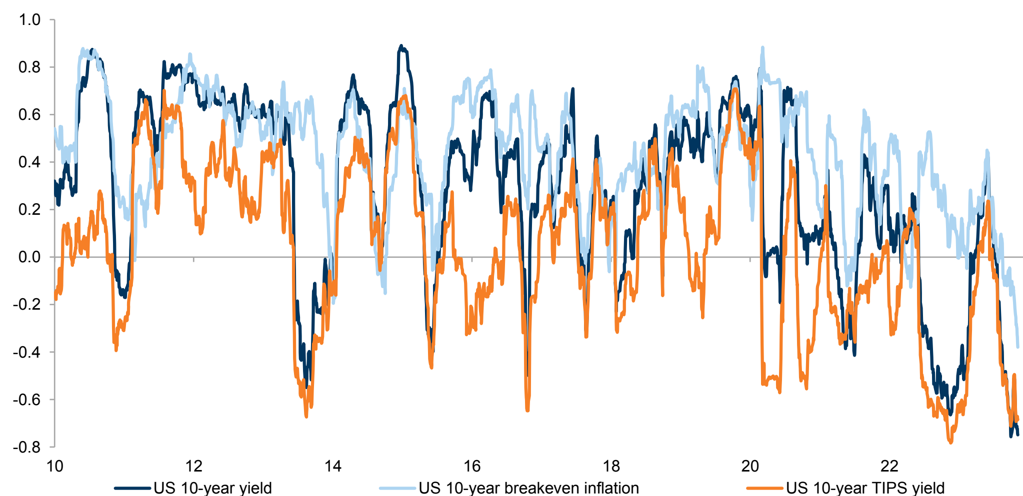
(5) The name is bond - more benefits from being balanced

Higher bond yields should help lower portfolio risk as bonds can buffer equities in the event of growth shocks. Equity/bond correlations depend on the level, speed and source of bond yield changes. In 2022, sharp increases in (real) bond yields, owing to aggressive monetary policy tightening, weighed on equities (Exhibit 18). In Q1 2023, bonds rallied during the equity drawdown around the US regional banks crisis. In Q2 2023, bond yields gradually increased again, with equities digesting it well, owing to growth optimism on the US cycle and AI. However, since the summer, equities have again become more negatively correlated with longer-dated bond yields.

Exhibit 18: Equities have become more negatively correlated with bond yields again
3-month correlation of S&P 500 with bond yields

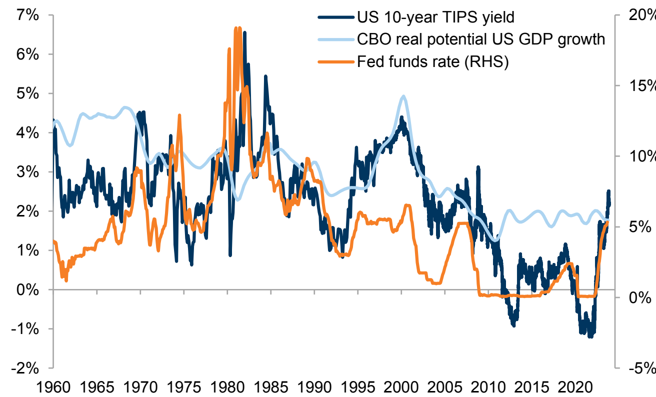


Source: Bloomberg, Goldman Sachs Global Investment Research

With most central banks at the end of their hiking cycles, and continued inflation normalisation, equity/bond correlations should be less positive in 2024. Real yields have historically peaked when the Fed stopped hiking (Exhibit 19). Only during the 1994

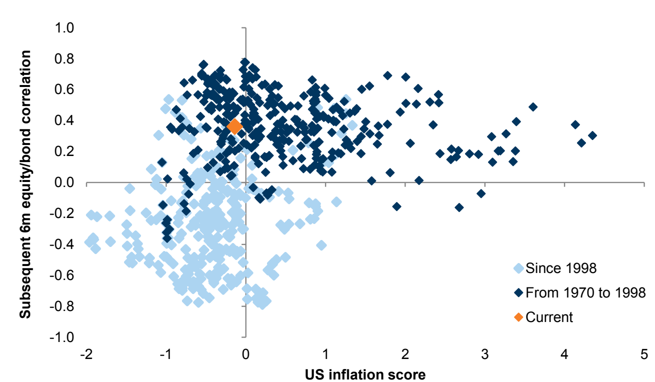
bond sell-off, and with growth optimism in the Tech bubble, have they increased further. This time, productivity growth from AI and fiscal policy/ bond supply should create gradual upward pressure on bond yields. From current levels of our inflation score, equity/bond correlations in the subsequent six months were usually more negative (Exhibit 20). With lower inflation, central banks generate fewer rate shocks and growth shocks become more important cross-asset drivers.

Exhibit 19: 10-year TIPS yields are above US trend growth estimates



Source: Haver Analytics, Goldman Sachs Global Investment Research

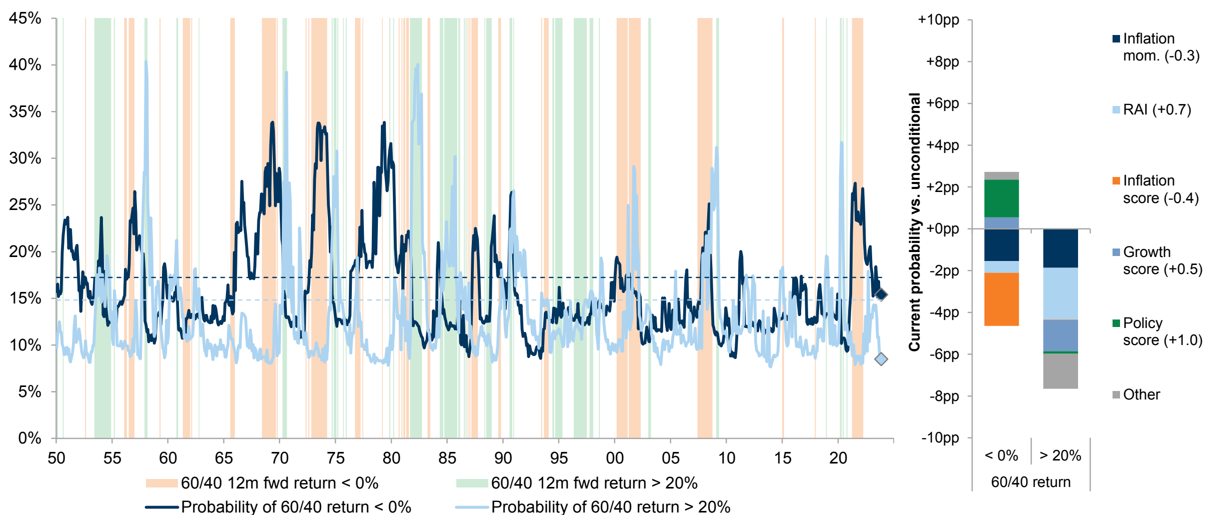
Exhibit 20: Inflation normalisation supports more negative equity/bond correlations



Source: Bloomberg, Haver Analytics, Goldman Sachs Global Investment Research

Our dynamic asset allocation model (using machine learning) is sending a similar message (Exhibit 21): while lower inflation levels and momentum have reduced left tail risk for 60/40 portfolios, pointing to less positive equity/bond correlations eventually, continued policy tightening and resilient growth have prevented a larger decline of the 60/40 drawdown probability. On the flipside, the likelihood of a large recovery in 60/40 portfolios is low, owing to elevated risk appetite and a continued late-cycle position. **The risk/reward for 60/40 portfolios has therefore improved but mainly on lower left tail risk - upside is likely to be capped.**

Exhibit 21: While the likelihood of large 60/40 drawdowns has declined from last year it remains elevated (and right tail risk is low)
Random forest probability (dotted lines = unconditional probabilities); bar chart decomposes the current probability (latest score in brackets)



Source: Haver Analytics, Bloomberg, Datastream, Goldman Sachs Global Investment Research

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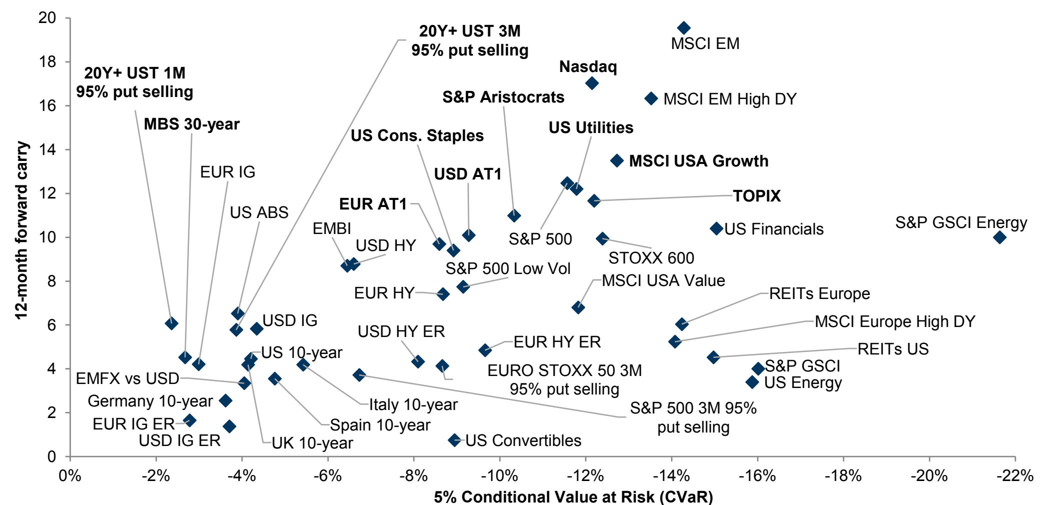
(6) Don't just carry on - selective and up-in-quality

Risk premia in fixed income and carry trades have compressed YTD, supported by a better growth/inflation mix and the need for them to buffer higher rates. Most carry trades, including lower-quality credit, tend to have attractive return/volatility ratios through cycle, but higher left tail risk late cycle – as a result we are reluctant to go down in quality. While credit quality appears healthy, it has likely peaked: higher rates should weigh on more leveraged parts of the economy and markets. While this is largely priced in the HY market, that is less the case in leveraged loans, for example. **Carry in agency MBS, banks' AT1s and strategies selling rates volatility look attractive relative to their left tail risk, in our view** (Exhibit 22).

The S&P 500 carry (dividend yield + earnings growth) is low vs. HY credit yields, considering higher risk. And earnings growth has to materialise - our US strategy team expects 5% S&P EPS growth for 2024, below consensus of 11%. This is also true for MSCI EM, where consensus earnings growth is strong, but might disappoint. Growth stocks such as Nasdaq have the highest expected carry vs. risk - we continue to like quality growth stocks across regions. We also like companies focused on cash returns - in contrast to last cycle, high dividend yields and share buybacks have been a signal of balance sheet strength, rather than a lack of growth prospects.

Exhibit 22: The trade-off between carry and left-tail risk offers some interesting opportunities across assets
Data since 2000 where available. Equities carry = 12-month forward dividend yield + forward earnings growth.



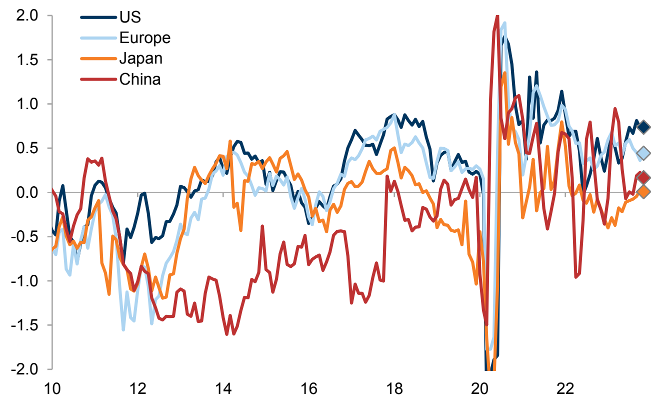
Source: Datastream, Haver Analytics, Bloomberg, Goldman Sachs Global Investment Research

(7) Mind the gaps across regions and sectors

We see another year of US exceptionalism, but believe growth outside the US should pick-up after some weakness in 2H 2023. A comparison of regional cycle scores reveals that China (and Japan) remain more 'early cycle' (Exhibit 23). Cycle divergence can provide regional diversification opportunities in equities, bonds and FX - in equities we are OW Asia for 3m, both China (A) and Japan, owing to their divergent cycle position. For 12m our favourite region is Japan, supported by domestic reflation and governance reform momentum. Additionally, we expect a larger inflation decline in

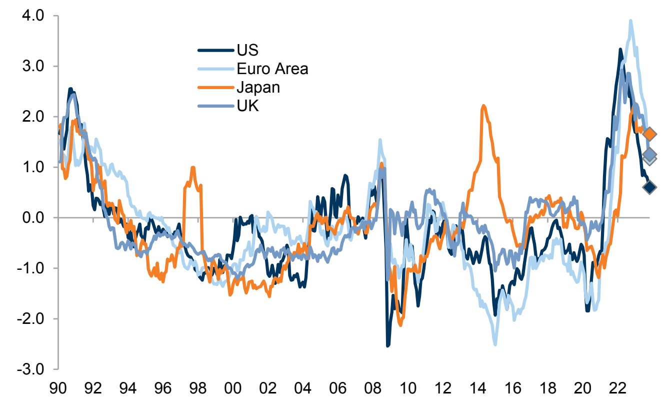
Europe in the coming months, which has been lagging the inflation normalisation in the US (Exhibit 24) - as a result we prefer receiving rates in Europe and with an expected growth pick-up, Europe might spend more time in a risk-friendly Goldilocks regime later in 2024. With near-term China weakness we like owning 1-year CGB (fx-hedged) to position for more easing.

Exhibit 23: From regional cycle divergence to convergence
Exp. z-score since 1990 Growth: hard CAI, equity EY gap, credit spreads



Source: Haver Analytics, Datastream, Goldman Sachs Global Investment Research

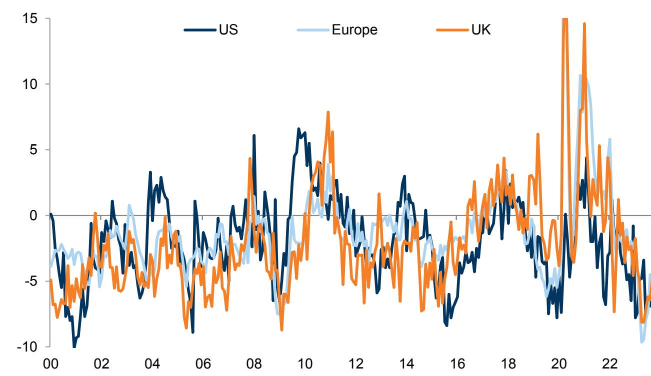
Exhibit 24: US inflation is leading the inflation normalization
Expanding z-score since 1990 Inflation: CPI, Core CPI, inflation swap



Source: Haver Analytics, Datastream, Goldman Sachs Global Investment Research

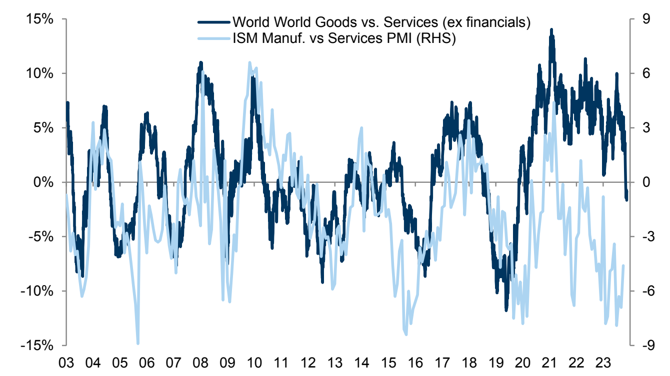
We would also expect some convergence between services and manufacturing after a large gap in 2024. Global manufacturing PMIs have been pointing to a deep contraction for most of 2023, while services have been more resilient, helped by strong labour markets (Exhibit 25). The manufacturing/services gaps remain large and should close with manufacturing recovering in our baseline macro view. As our economists have highlighted, manufacturing is more cyclical than services, and more sensitive to rising rates/tightening financial conditions. After outperforming during the COVID-19 crisis, cyclical goods sectors have underperformed services YTD, alongside the PMI differential (Exhibit 26). In 2024, there might be opportunities to position for a pick-up in manufacturing: for example, our US strategy team likes beaten-down cyclicals.

Exhibit 25: Services PMIs have been strong vs. manufacturing
Manufacturing minus services PMIs



Source: Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 26: Services have outperformed vs. goods sectors
The goods vs. services split is based on MSCI World GICS Level 2



Source: Datastream, Haver Analytics, Goldman Sachs Global Investment Research

(8) The impact of (geo)politics and related risks

Investors also need to navigate elevated geopolitical risk and political uncertainty

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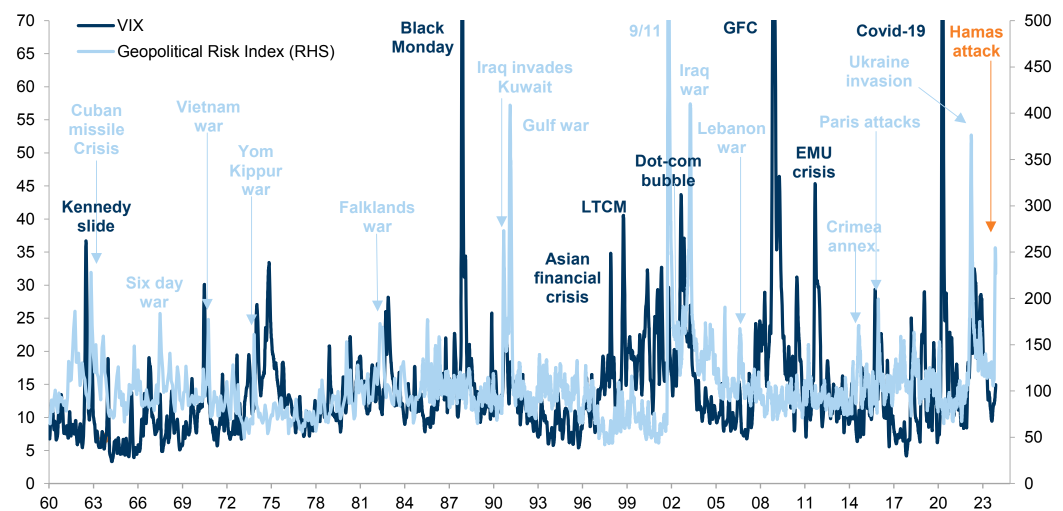
in 2024. Since Russia's invasion of Ukraine last year, the conflict has continued and there have been tensions in the Middle East following Hamas' attack on Israel. Political uncertainty is elevated with upcoming elections in the US, India, the UK, EU to name just a few (see ***Calendar*** for details). Geopolitical shocks can have material knock-on effects for global growth, inflation and sentiment, especially as economies and markets have become more global and assets more correlated. However, it is very difficult to position around related tail risks, which can drive rapid and large 'risk off' shifts but have a low chance of materializing (Exhibit 27).

Taking a view as events unfold is similarly difficult, with high uncertainty and often multiple potential forward scenarios. In fact, equities have often consolidated in periods of rising geopolitical risk and rallied sharply after risk has peaked. On the flipside, some geopolitical shocks have had lasting impacts on economies and markets of multiple years. To complicate things further, geopolitical shocks usually begin as local events and affect only specific assets and markets, but can have global knock-on effects later. The first line of defence is robust portfolio construction and diversification - a better buffer from bonds should help. **We also think commodities remain an important diversifier for escalating tensions in the Middle East and European energy crisis risk.**

Exhibit 27: Geopolitical risk often drives equity volatility and broad 'risk off' moves
1-month average; last value is November 17th, 2023; S&P 500 realized vol before 1990

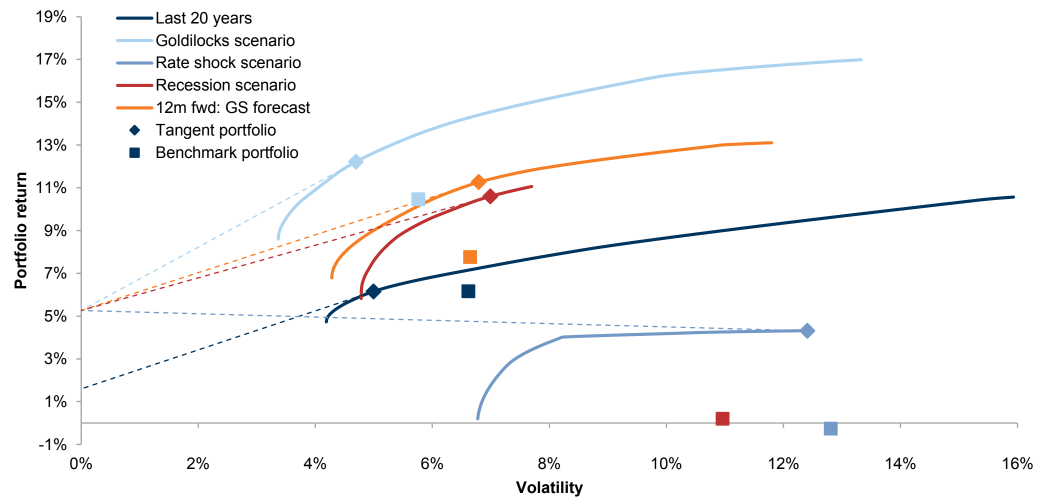


Source: Bloomberg; Dario Caldara and Matteo Iacoviello, Goldman Sachs Global Investment Research

(9) Being more efficient with less diversification desperation

We expect a better opportunity set for multi-asset portfolios, both in terms of return and risk. In 2022, there was little reward for moving up the risk curve and few diversification benefits - 2023 turned out to be better for risky assets, but bonds remained a material drag in portfolios. Based on our forward return forecasts, and assuming more normal cross-asset risk and correlation assumptions, results in an upward sloping efficient frontier, higher than the average of the last 20 years (Exhibit 28). Admittedly there are risks around this base case: our US equity strategy team highlighted risk scenarios for the S&P 500 (recession, rate shocks, Goldilocks). Assuming a typical cross-asset response, we estimate respective efficient frontiers.

Exhibit 28: A steeper efficient frontier points to more benefit from being invested
FX-hedged returns in US$



Note: each asset's weight is capped at 3x the benchmark weight. The weight of cash can reach 100% in the target 7% volatility portfolio. We do not use leverage or short selling (i.e. min weight is 0%).

Source: Goldman Sachs Global Investment Research

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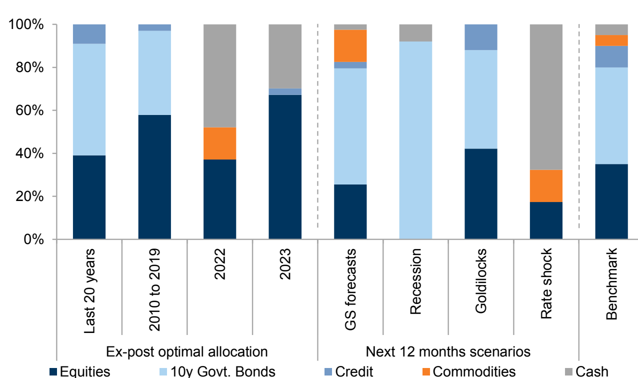
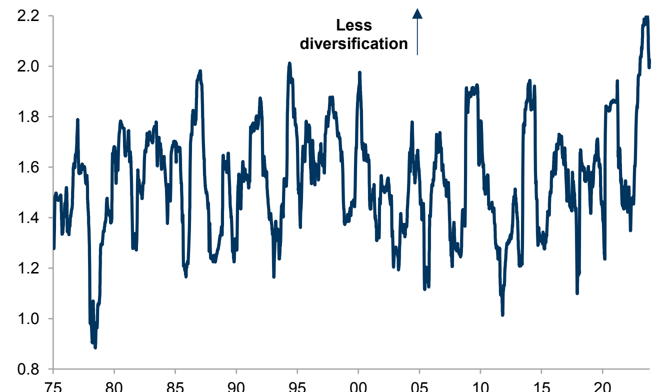
For investors targeting 7% portfolio volatility, in line with the LT average, based on our base case forecasts the optimal portfolio now includes allocations to bonds after a large overweight in cash in the last two years (Exhibit 29). The optimal portfolios in the risk scenarios are quite different, pointing to increased benefits of being balanced in multi-asset portfolios. With less positive equity/bond correlations, and commodities likely to provide a hedge in the event of further geopolitical shocks, we would expect more diversification benefits from multi-asset portfolios. **Compared to the last two years, we expect less diversification desperation in 2024** (Exhibit 30).

Exhibit 29: Cash is less of a king and bonds are entering optimal portfolios again
Optimal asset mix with a 7% vol target



Source: Goldman Sachs Global Investment Research

Exhibit 30: After one of the worst backdrops for portfolio diversification we expect more opportunities
Ratio of GOAL benchmark portfolio volatility vs. average across assets



Source: Haver Analytics, Datastream, Goldman Sachs Global Investment Research

(10) Thinking of alternatives - CTAs, real assets and AI

A 'higher for longer' backdrop is often seen as a drag for alternatives such as hedge funds and private markets. For hedge funds, there is more competition from

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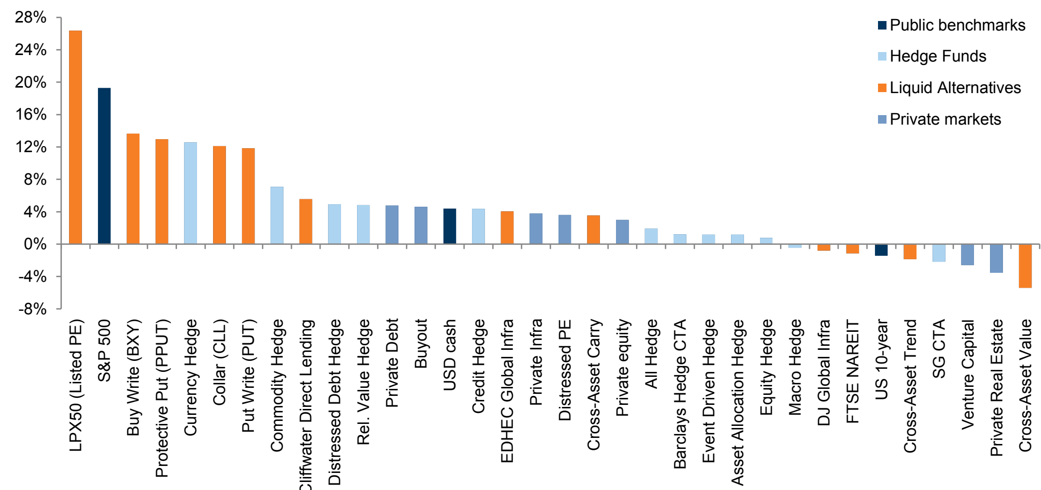
cash and bonds, and private markets need to adjust to a higher cost of capital. Nevertheless, alternatives have performed well in 2023, in some cases following a very difficult 2022 (LPX 50 listed private equity index has rebounded 24% YTD after declining 26% in 2022). The main exceptions have been real estate and infrastructure, both public and private, which continued to perform poorly, owing to the drag from rising yields on NAVs and leverage - **real estate and infrastructure are a key beneficiary from faster-than-expected declines in rates**.

Hedge funds have delivered positive returns in aggregate but mostly lagged cash - after a strong 2022, CTAs have had lower returns YTD but still outperformed bonds. In liquid alternatives, cross-asset carry performed best and cross-asset value worst - volatility selling strategies like call overwriting (BXY) and put selling (PUT) also performed well. If bonds can buffer growth shocks better, allocations to hedge funds might appear less attractive in 2024. However, we believe potential crisis alpha still makes allocations to hedge funds such as CTAs or macro strategies attractive. **Also, with less beta and more alpha opportunities, as well as potential for financial distress in 2024, related hedge fund strategies might benefit.**

Performance dispersion within private markets is likely to remain high in our view, owing to public vs. private valuation gaps, embedded leverage, and difficulty of exit. The search for carry has supported private credit flows materially, and this might continue with more refinancing needs next year. The search for growth, e.g. related to AI, is likely to support private equity and VC flows, especially with already elevated public market valuations. **Tech-driven equity rallies have proven to be very favourable for VCs in the past -** VCs materially outperformed the S&P 500 and private equity both in the run-up to the Tech bubble and in the rebound from the COVID-19 bear market.

Exhibit 31: Most alternatives have performed well but struggled to outperform public markets in 2023
YTD performance in US$. Private markets perf. as of Q2



Source: Bloomberg, Preqin, Goldman Sachs Global Investment Research

Multi-asset positioning: Cash out, bonds (and some equities) in

Multi-asset positioning went through a round-trip in 2023 - our aggregate measure started the year from relatively bearish levels, but picked up post the US regional banks crisis as investors priced out recession risk; after fears around the Hamas attacks, it has now climbed back towards neutral territory, reflecting investors' confidence that inflation is normalizing without a recession, and that central banks have enough bandwidth to provide support if the macro backdrop deteriorates (Exhibit 33). The AAII Bull vs. Bear, which was at its lowest percentile vs. history at the start of the year, has now moved into extreme bullish territory - a sharp reversal (Exhibit 32).

The recent bullish shift has been largely driven by a rebound in sentiment surveys and option positioning, but also low volatility and more positive equity flows momentum. Bearish surveys and option positioning have the best predictive power for short-term reversals - after the recent rally these indicators are back to levels that do not signal unusually positive asymmetry for forward equity returns. Macro momentum will be important in shaping the trajectory for risky assets in 2024, but upside tends to be more capped from less bearish positioning (Exhibit 35).

2023 has seen large inflows into money markets and bonds, especially government, which have roughly reversed 2022 outflows. Equities have had net outflows YTD, after modest inflows in 2022 (Exhibit 34). Global money market funds AuM are at a record $8 tn (~$7 tn of which is US). Flows into credit are flat, a reversal of the large 2022 outflows.

We believe investors will look for opportunities to deploy cash in 2024 and are likely to find them in both equities and bonds. The fund flow cycle shows that large inflows into money markets are typically followed by a rotation into the other asset classes (Exhibit 36) - money markets outflows are yet to materialize, leaving room for this dynamic to be at play into next year, especially as front-end rates are likely to decline in our view, reducing the relative attractiveness of cash.

While inflows into fixed income have been large this year, we expect further demand for bonds in a 'higher-for-longer' rates regime: (1) Historically, the end of Fed hiking cycles drove fixed income inflows (especially ETFs) - on average bond funds have added about 4%-5% of AuM in the 12m following the last hike (10% over 2y) (Exhibit 37). The sharpest inflows have generally been driven by a 'risk-off' turn and recession fears - under our baseline macro scenario, inflows might be more gradual this time. A non-recessionary backdrop might be more supportive for credit than a normal late cycle, and our strategists still expect supportive supply/demand dynamics; (2) While asset managers' allocations have already shifted towards government bonds, other investors less so. Also, US Households continue to be heavily invested in equities, and have low bond allocations (Exhibit 38); while they have increased purchases of debt securities in both 2022 and 2023 (Exhibit 39) - and European households have too - we believe they will absorb more (they own c.9% of the US Treasury market). Allocations to US fixed income from foreign investors, which are big owners of US debt securities (both government and corporates), are also unusually low.

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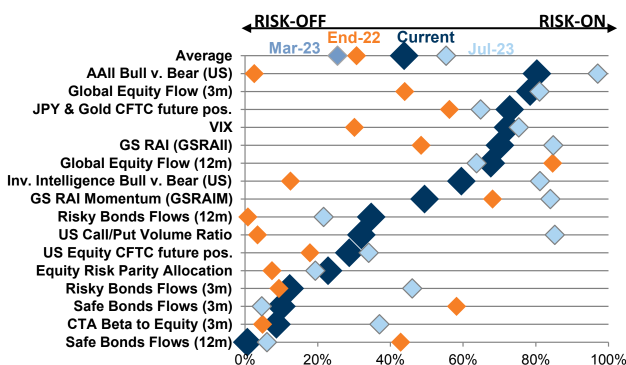
The increased appetite for fixed income is likely to tame inflows into equities, but we still expect some support from elevated corporate net equity demand via buybacks in both the US and Europe. In the US, corporates have been large buyers of equities in past years, and they are likely to be a more important source of demand relative to, for example, households from here. Buybacks have only recently become a European story, instead. Our baseline of stronger growth in the US vs. RoW will also likely be more supportive of demand for US equities from foreign investors.

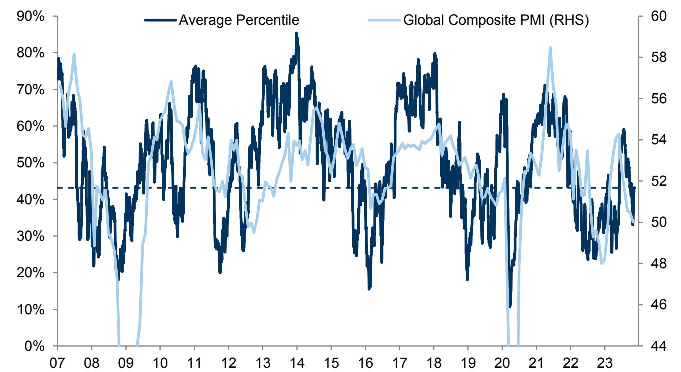
Investors have rotated aggressively to 'Quality' since the US regional banks crisis (Exhibit 40). However, other safe assets pockets, such as low vol or gold have not seen much by way of inflows, largely owing to headwinds from higher yields. Going forward, and past peak rates, we expect a more balanced allocation across safe assets.

Exhibit 32: Positioning and sentiment indicators are back to relatively neutral levels
Percentile of positioning and sentiment indicators since 2007



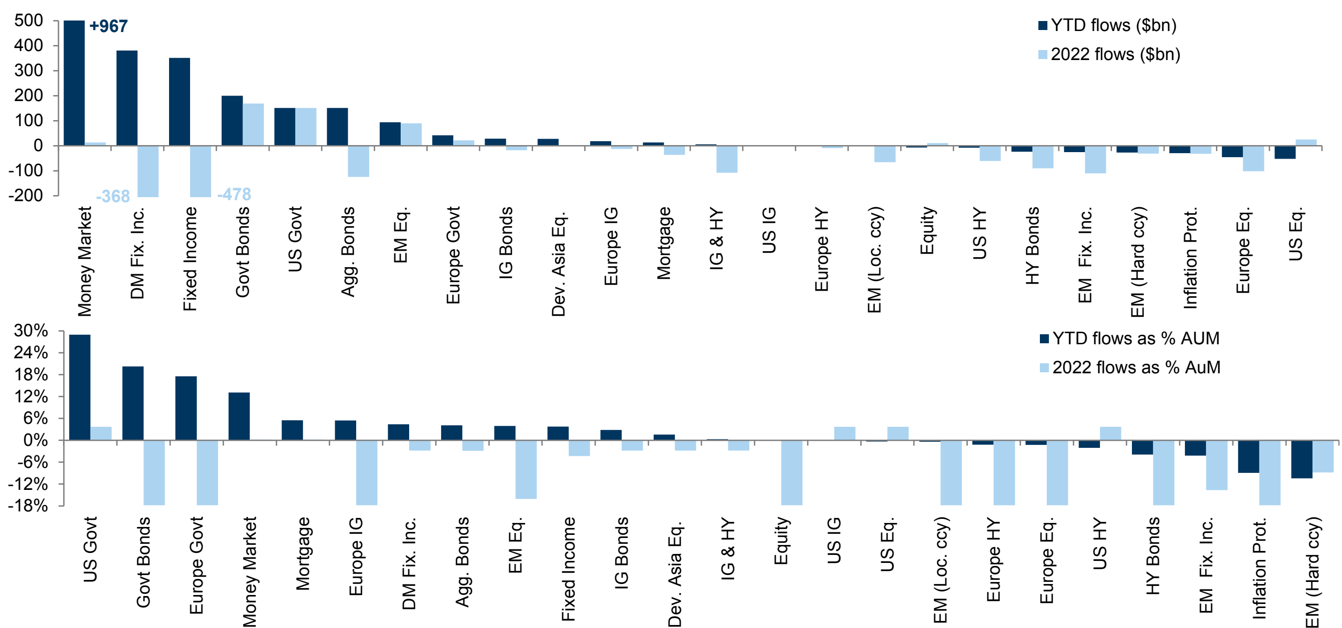
Source: Haver Analytics, Datastream, Goldman Sachs Global Investment Research

Exhibit 33: Our Positioning & Sentiment Indicator is going into year-end more bullish than at the end of 2022
Average percentile of sentiment indicators in Exhibit 32



Source: Haver Analytics, Datastream, Goldman Sachs Global Investment Research

Exhibit 34: Money markets and fixed income inflows have dominated 2023
Global YTD and last year fund flows in $bn and as a % of AuM at period start



Source: Haver Analytics, EPFR, Goldman Sachs Global Investment Research

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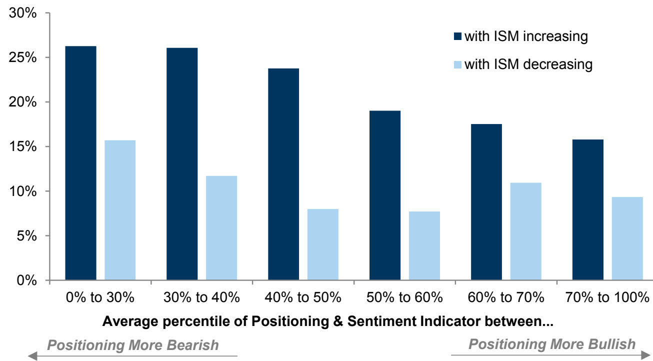
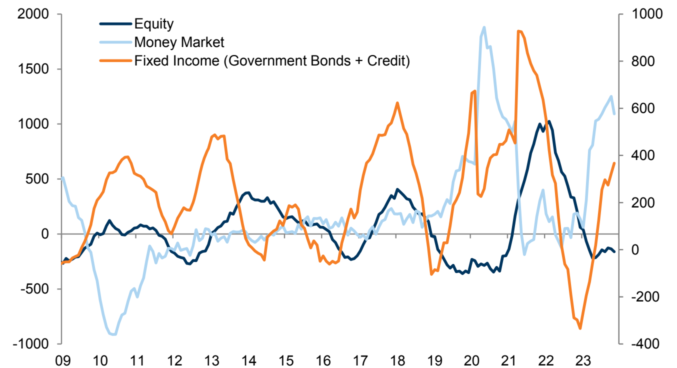
Exhibit 35: From high levels of positioning, upside tends to be more capped, but growth momentum is important
Max S&P 500 12-month subsequent returns for different percentiles of our Positioning & Sentiment Indicator



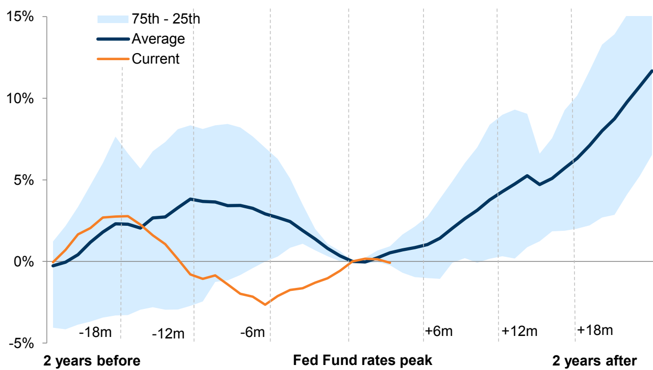
Source: Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 36: Large inflows into money markets have been followed by a rotation into other asset classes
12-month rolling global flows ($bn) (Monthly flows, MTD sum of weekly flows when monthly not yet available)



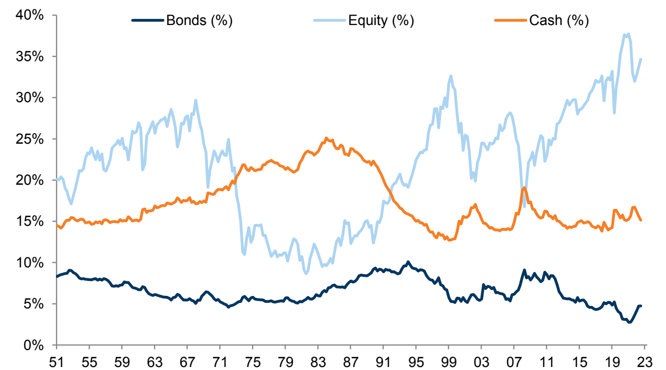
Source: Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 37: Inflows into bonds generally pick up around the end of a hiking cycle
Global bonds flows around hiking cycles (since 1985), as a % of AuM



Source: ICE, Haver Analytics, Goldman Sachs Global Investment Research

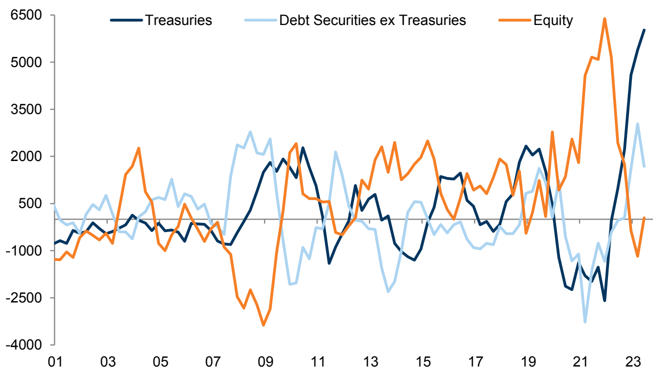
Exhibit 38: US households are still heavily invested in equities
US households allocation (% of total financial assets); as of 2023 Q2



Only include direct allocation (i.e. not indirect allocation via funds etc).

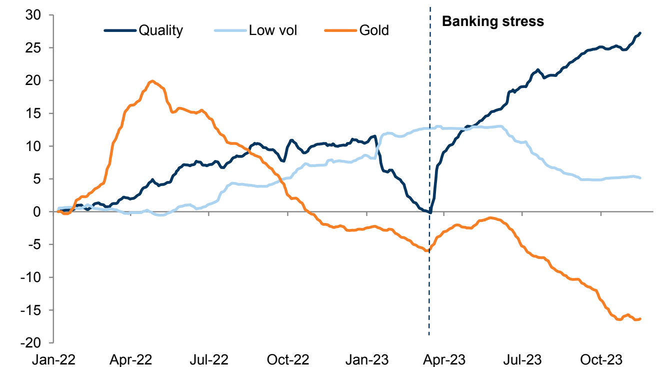
Source: Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 39: US fixed income household demand has come at the expense of equities
Net purchases of US households (12m rolling sum, $bn); equities include corporate equities and mutual fund shares, as of 2023Q2



Source: Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 40: Large inflows into global quality ETFs since the banking crisis, more limited across other safe assets
Cumulative flows into Quality, Low Vol and Gold ETFs



Source: Bloomberg, Goldman Sachs Global Investment Research

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Multi-asset volatility: Cross-asset vol reset allows for selective hedges

Owing to a better-than-expected macro backdrop, the number of 3x standard deviation moves across assets has sharply declined from last year's elevated levels (Exhibit 41). While there have been some moments of turbulence this year, such as the US regional bank crisis, an elevated starting level of volatility created a high bar for extreme moves: sharp moves have been more frequent in bonds than in equity markets.

Cross-asset implied volatility has reset lower this year, led by equity implied volatility, as the VIX reached a YTD low of 13% in June. After a temporary increase, the VIX is again below 14% (Exhibit 42). On average across assets, volatility has also reset, with the exception of rates volatility which has remained elevated. The implied volatility of China equity, Oil and USD/JPY are also still above their 10-year medians (Exhibit 43).

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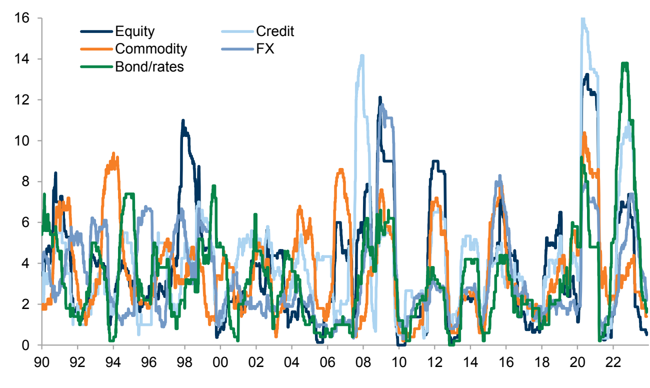
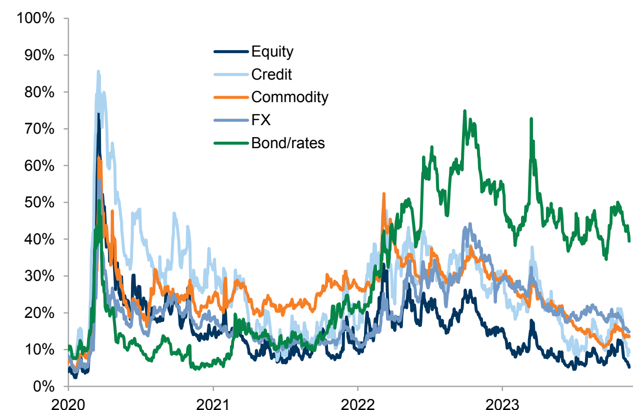
Exhibit 41: The number of extreme cross-asset moves has fallen
1-year rolling number of 3x standard deviation daily moves



Source: Datastream, Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 42: Volatilities have reset, but rates vol remains elevated
Average 3-month ATM implied volatility (max/min range since 2008)



Source: Goldman Sachs, Goldman Sachs Global Investment Research

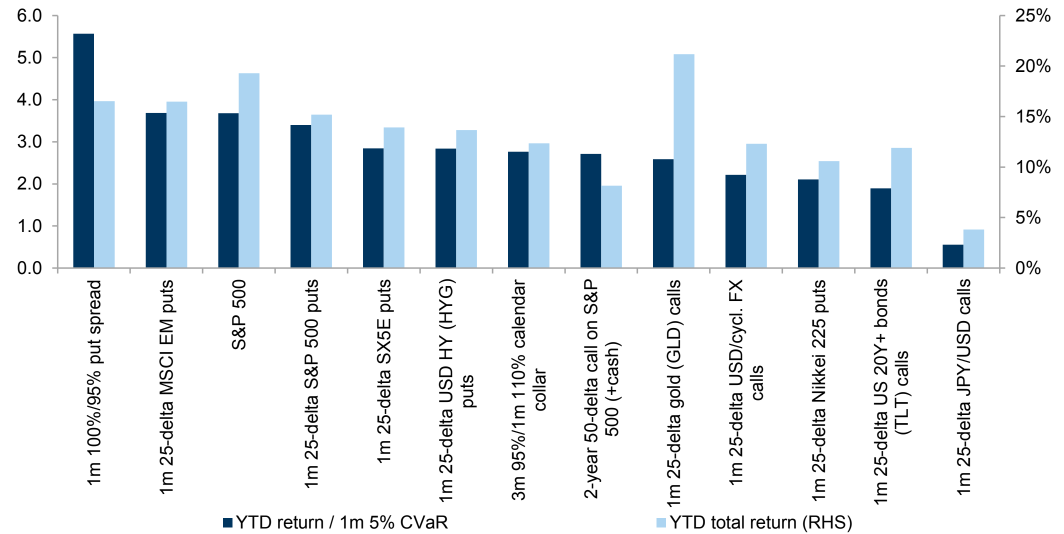
Exhibit 43: Implied volatility has reset across assets, but remains high in rates

	Equities						Rates				Credit			Commodities			Currencies		
	S&P 500	EURO STOXX 50	Nikkei 225	FTSE 100	MSCI EM	China large-cap	USD 2-year	USD 10-year	EUR 2-year	EUR 10-year	CDX IG	CDX HY	iTraxx Europe	WTI	Gold	Copper	EUR/ USD	JPY/ USD	GBP/ USD
Implied (3-month ATM, %)																			
Current:	12.0	12.6	17.0	10.4	15.7	26.3	7.1	7.2	5.8	5.8	38.6	33.7	39.5	35.8	11.9	17.8	6.1	8.1	7.2
Percentile:	*19%*	*7%*	*30%*	*6%*	*11%*	*74%*	*83%*	*89%*	*84%*	*85%*	*5%*	*14%*	*6%*	*56%*	*26%*	*25%*	*22%*	*45%*	*21%*
1M change:	-2.6	-3.5	-1.7	-2.2	-1.3	-1.3	-0.5	-1.0	0.0	-1.1	-7.2	-8.0	-10.5	-3.3	-1.5	-0.9	-1.1	-0.3	-1.0
Average:	16.0	18.2	19.1	14.9	19.9	23.8	4.1	5.0	2.5	3.7	50.0	45.4	53.5	35.7	14.4	21.7	7.7	8.7	8.9
95th:	25.2	26.1	25.6	22.6	26.7	34.1	9.7	7.9	8.5	7.7	69.7	65.7	70.3	54.5	19.5	29.7	11.3	12.7	13.0
5th:	10.0	12.3	13.8	10.3	15.2	17.2	1.3	3.5	0.9	2.2	38.5	30.7	38.7	17.1	9.7	15.2	5.1	5.6	6.1
Realised (%)																			
1-month:	15.6	13.5	21.3	12.5	17.1	28.3	8.4	8.4	3.5	4.5	42.9	33.1	40.0	41.5	13.7	13.0	8.7	9.5	10.2
Percentile:	*64%*	*34%*	*73%*	*52%*	*76%*	*72%*	*92%*	*94%*	*82%*	*77%*	*67%*	*60%*	*55%*	*70%*	*55%*	*10%*	*75%*	*69%*	*80%*
Average:	15.0	17.6	18.8	14.2	14.6	25.2	3.8	4.8	1.9	3.5	39.9	33.8	42.7	39.1	13.7	19.8	7.4	8.3	8.7

Source: Goldman Sachs, Datastream, Goldman Sachs Global Investment Research

This year, with the recovery of risky assets, most option protection strategies would have weighed on risk-adjusted returns (Exhibit 44). The only exception have been equity put spreads (which we recommended early this year): these would have boosted risk-adjusted returns, as selling OTM puts helped reduce the cost of the hedge and drawdowns were relatively shallow and gradual. On the other hand, rates exposed cross-asset options such USD, JPY, US bonds, and Gold calls have underperformed the most, compared to equity puts.

Exhibit 44: Most option protection strategies have weighed on risk-adjusted returns YTD

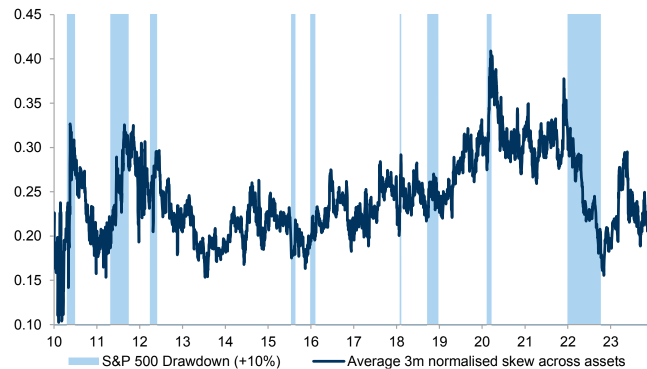


Source: Goldman Sachs Global Investment Research

Cross-asset risk-off/risk-on skew has also declined this year and, outside the US regional bank crisis, has remained well below the 2020/2021 levels (Exhibit 45). Market pricing of skew is the lowest for US equity markets, in particular following the recent market rally. Moreover, the equity volatility risk premium has been close to 0% (Exhibit 46) - this, coupled with low implied volatility and skew, leaves equity puts looking relatively attractive compared to history.

Exhibit 45: Cross-asset risk-off/risk-on skew has also remained low this year

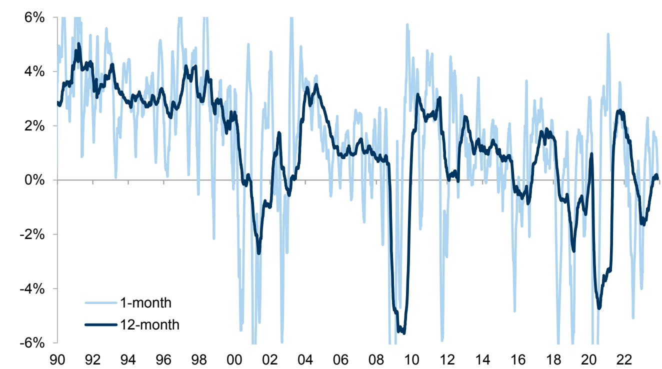
Average of S&P 500, EURO STOXX 50, HYG, WTI, Gold, USD/cycl FX



Source: Goldman Sachs, Goldman Sachs Global Investment Research

Exhibit 46: The equity volatility risk premium is now close to zero

Average vol risk premium = 1m ATM S&P 500 vol – exp. MA (lambda = 0.9)



Source: Datastream, Goldman Sachs Global Investment Research

Our S&P 500 volatility regime model has indicated a high probability of a low vol regime for most of the year, consistent with the equity volatility reset this year (Exhibit 47). The higher odds of a low vol regime have been driven by falling macroeconomic uncertainty, low market stress, and relatively tight credit spreads. More recently, the probability of a high vol regime has increased, following the steepening of the yield curve and rising unemployment rate, but it is still not above the unconditional and our economists expect the US unemployment rate to continue hovering in the mid-to-high 3s next year. We expect equity volatility to remain subdued next year, thanks

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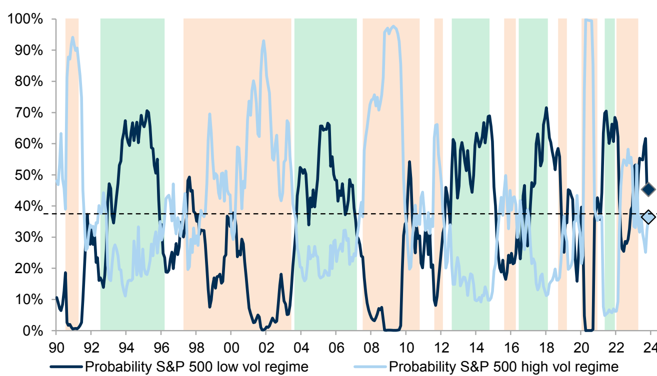
to limited recession risk and tailwinds to global growth in 2024. That said, (geo)political risk might generate more vol of vol, and volatility premia, in particular after the summer into the US election.

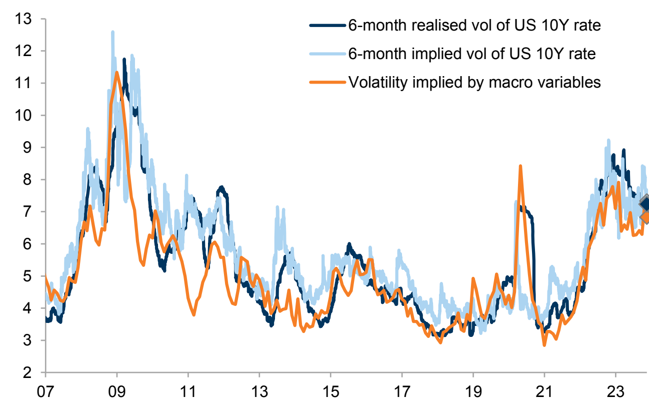
Longer-date rates volatility should reset in 2024, as most central banks appear to be at the end of their hiking cycles. The reset has been delayed by the market repricing towards 'higher for longer' and higher term premia. Our macro-implied level of rates volatility has broadly decreased, thanks to macroeconomic and policy uncertainty falling (except a rise in monetary policy uncertainty last month), and this points to a continued reset in rates vol from here (Exhibit 48) - our rates team recommends selling 6m2y USD straddles versus a vega-neutral amount of 6m2y EUR straddles.

Exhibit 47: A continued low vol regime has become less likely
Dashed line: unconditional probability. Orange/green shadings: high/low vol regime



Source: Haver Analytics, Datastream, Consensus Economics, Goldman Sachs Global Investment Research

Exhibit 48: Rates volatility is above our macro-implied level



Source: Haver Analytics, Consensus Economics, Goldman Sachs, Goldman Sachs Global Investment Research

Opportunities and hedges into 2024

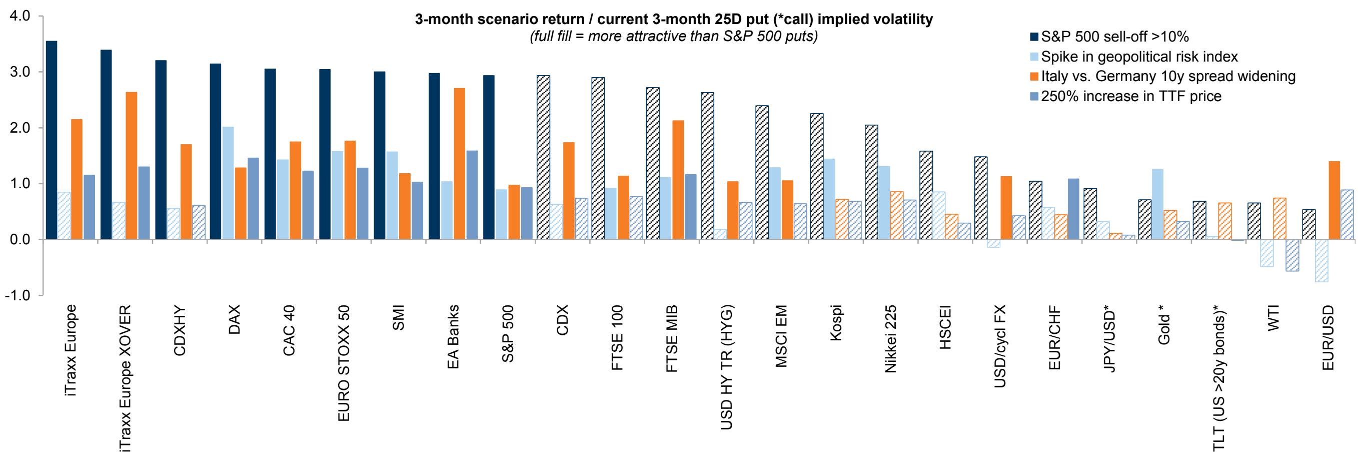
Given our friendly macro baseline we are selective on where and how to spend for protection. We continue to think that equity put spreads look attractive to hedge the risk of a retracement after the recent equity rally - 3m put spreads on the S&P 500 are trading close to all time lows (Exhibit 50). At a longer horizon, we prefer owning equity collars, i.e. OTM puts financed by selling OTM calls. Selling a 1-year 15% OTM call on the S&P 500 (consistent with the most optimistic scenario from our strategists) would bring down the cost of a 1-year 5% OTM put to the lowest since 2008 - collars also benefit from the low skew levels (Exhibit 50).

Cross-asset hedges can help investors navigate elevated (geo)political risk in 2024: Exhibit 49 shows average cross-asset returns under different geopolitical and downside scenarios compared to current implied volatilities. Puts on European equities, in particular Euro Area Banks (SX7E), screen as attractive in a Euro Area sovereign risk or a TTF gas price shock. Long gold volatility looks attractive to hedge against an increase (or sudden decrease) in geopolitical risk. Overall, CDS payer swaptions on iTraxx/CDX HY appear the most attractive hedges against an equity sell-off. Among FX, puts on GBP/USD look attractive as downside hedges given the low implied vol and our FX strategists' view of a continuation of pound depreciation in the near term.

Calls on MSCI EM look attractive to gain exposure to the right tail in China in the coming months (Exhibit 51). We continue to like longer-dated calls on Nikkei: we are OW Japan equities over 12m and the divergence in US and Japan rates makes longer-dated calls on Nikkei attractive despite the high implied vol. For example, a 2-year ATM call on Nikkei has about the same cost as the same call on EURO STOXX 50, and two-thirds the cost as the same call on the S&P 500.

Selling the upside on bonds to finance downside protection in equities look attractive to hedge against a retracement of the recent cross-asset rally - selling a 3-month 10% OTM call on TLT can almost fully fund the cost of a 3-month 5% put on S&P 500. Equity implied volatility continues to look cheap compared to CDS spreads - carry from CDS longs can also be used to fund equity puts or CDS payer swaptions. Last, while we expect bonds to become better hedges for equities, equity down/rates up hybrids can protect against temporary episodes of negative equity/bond yield correlations - the implied correlation is near zero.

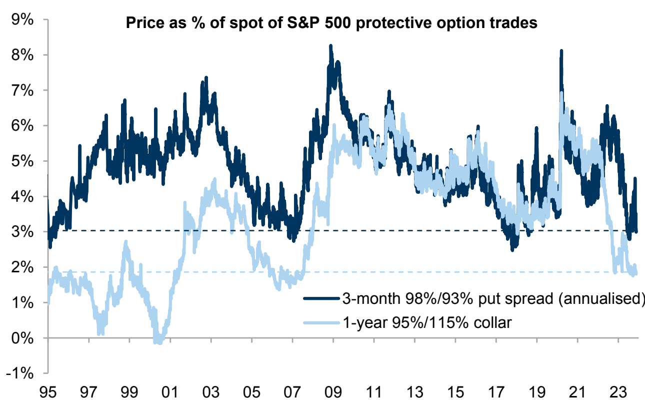
Exhibit 49: Cross-asset options can help investors navigate elevated (geo)political risk in 2024



S&P 500 sell-off >10%, spike in geopolitical risk index, Italy vs. Germany 10y spread widening based on average returns since 2000. 250% increase in TTF price based on beta to TTF since July 2021.

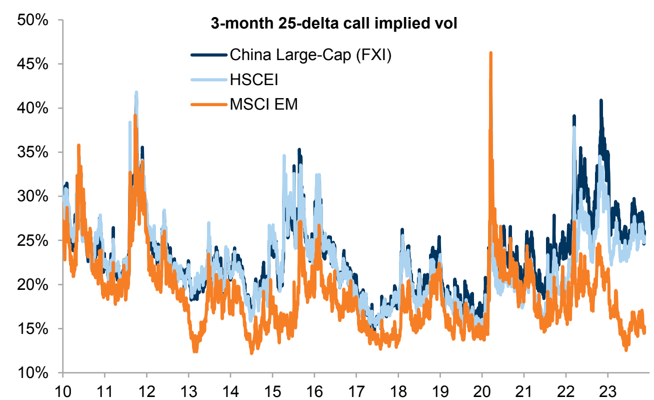
Source: Goldman Sachs, Datastream, Goldman Sachs Global Investment Research

Exhibit 50: We like put spreads in the near term and 1-year collars



Source: Goldman Sachs, Goldman Sachs Global Investment Research

Exhibit 51: The implied volatility of MSCI EM has decoupled from that of China equities



Source: Goldman Sachs, Goldman Sachs Global Investment Research

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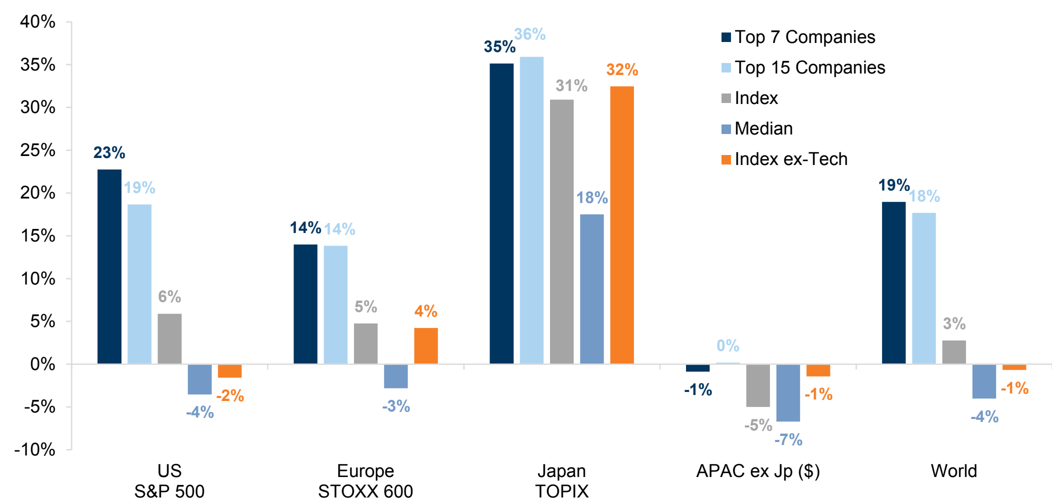
Equities (3m N & 12m N): Home on the Range

We are N equities for 3m and 12m with modest returns driven by earnings growth and dividend yield, but limited valuation expansion. We expect equities to remain in the 'fat and flat' range they have been since 2022, but move to the upper end - equity risk premia are low and should provide a speed limit for returns. We are N US and Europe for 3 and 12m, and OW Asia for 3m, both China and Japan, due to their divergent cycle position. We favour Japan over 12m, supported by domestic reflation and governance reform momentum.

When equities rise towards the upper end of their *Fat & Flat* range

Rising interest rates since 2022 have constrained equities, with returns oscillating in a *Fat & Flat* range. Outside a few large companies, most equity markets are flat or down since the tightening cycle began - even more so in real terms - and have failed to keep up with cash (Exhibit 52). The only exception is Japan even through returns in USD have been much lower.

Exhibit 52: Equity returns have failed to keep up with cash outside of a few specific areas
Total return performance since first Fed hike in March 2022; local currency, except for Asia Pacific ex. Japan in USD



Performance since March 16, 2022. Largest 7 and 15 companies by market cap size at the start of period. Median constituent return.

Source: Datastream, Worldscope, STOXX, Goldman Sachs Global Investment Research

The good news is that inflation and interest rates now appear to have peaked and our economists continue to expect a soft landing. This backdrop is more friendly for equity markets, reducing the downside risks for investors. However, the upside is also constrained by a low equity risk premium, only moderate growth, and indications that the market is already pricing a soft landing.

We expect 5% price returns and 7% total returns for Global equities over the next year, taking them towards the upper end of the *Fat & Flat* range they have been in since 2022 and modestly outperforming cash. We believe valuations will be constrained by higher-for-longer interest rates and as such our forecasts are broadly in

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line with our mid-single digit earnings growth expectations (Exhibit 53). While we believe the top line should grow with nominal GDP, we are less optimistic than consensus on margins. Margins remain near a record high, whilst resilient growth in input costs, rising interest costs and higher effective tax rates will likely be a drag. And, while we argue that AI is not a bubble, it should have only a limited impact on profitability near-term with material margin upside unlikely before the end of the decade.

In contrast to the last cycle, we think regional diversification should continue to help risk-adjusted returns. We think Asia offers interesting divergence opportunities, and we maintain our OW Japan on the back of potential for valuation expansion supported by domestic reflation and governance reform momentum. Our strategists expect strong earnings growth Asia ex Japan, albeit from a low level, but prefer "alpha" to "beta" implementations due to a challenging mix of moderating growth, elevated level of rates, dollar dominance and geopolitical uncertainties. In the regions, they are OW India, Korea, China A and Thailand. The rest of EMs offer a number of rate-sensitive exposures such as Mexico, South Africa and Egypt.

Exhibit 53: Key equity market forecasts

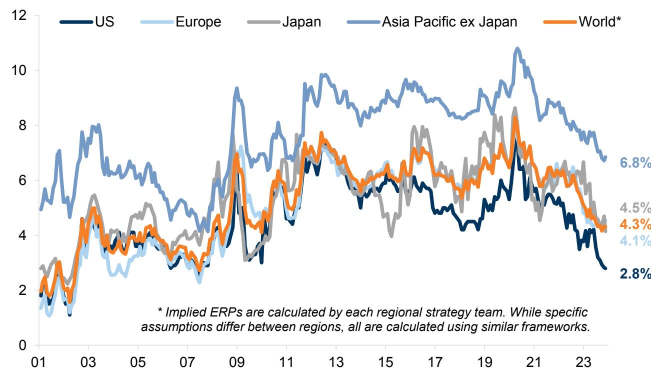
		3-month				12-month						2024
				Price Return				Price Return		Total return		EPS Forecast
	Current	Level	Wgt	Local	USD	Level	Wgt	Local	USD	Local	USD	Growth
MSCI Asia Pac ex Japan	501	515	OW	5 %	3 %	550	N	10 %	10 %	13 %	13 %	15 %
TOPIX	2391	2500	OW	5 %	1 %	2650	OW	11 %	11 %	12 %	11 %	8 %
STOXX Europe 600	456	450	N	(1)%	(6)%	480	N	5 %	6 %	9 %	10 %	7 %
S&P 500	4514	4500	N	(0)%	(0)%	4700	N	4 %	4 %	6 %	6 %	5 %

Source: Datastream, Goldman Sachs Global Investment Research

Valuations provide little upside but the total shareholder return is decent

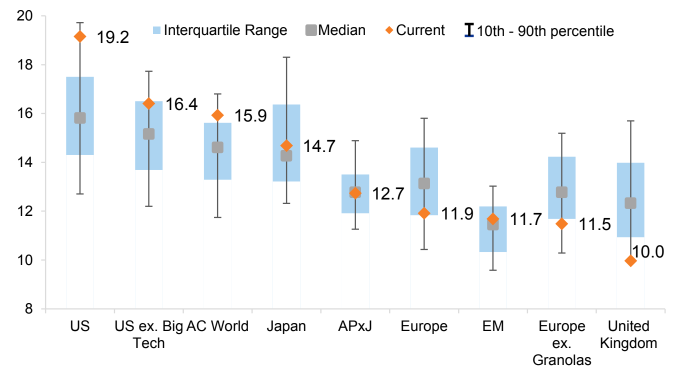
The higher level of bond yields has resulted in a decline of equity risk premia to relatively low levels, providing less buffer for higher rates (Exhibit 54). The US equity market, which remains the most expensive, looks particularly vulnerable in case of larger increase of rates. While US 10 year TIPS yields were more than 1% in negative territory a little over a year ago, they are now over 2%. A few technology-related companies have enjoyed a sufficient rise in growth expectations to offset the impact of a rise in the discount rate, but the median stock has not and, consequently, has de-rated. The P/E ratio in the US market, ex. tech, is now only moderately above its longer-run averages. **Outside the US, Asia and Japan are valued in line with longer-term averages, while across Europe equities remain cheaper than they typically have been in the past** (Exhibit 55).

Exhibit 54: Higher bond yields has pushed down equity risk premia
Global market implied ERP (%)



Source: Goldman Sachs Global Investment Research

Exhibit 55: A significant spread of valuations across regions
12m fwd P/E, MSCI regions; data since 2003



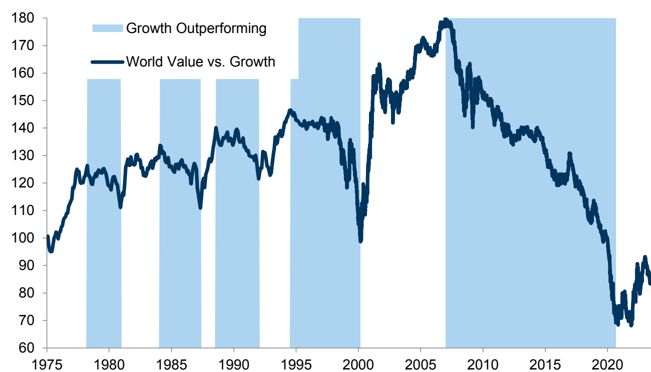
Source: Factset, Goldman Sachs Global Investment Research

On the positive side, corporates are buying back their own shares across US, Europe, and Japan. The total shareholder return based on the income received is around 5% for both the US and Europe. Meanwhile, almost half of the companies listed on TOPIX (ex. Financials) are now net cash, and cash levels have almost doubled since the start of Abenomics in late-2012. At the same time, while there is a growing proportion of companies that will need to refinance in 2024 and 2025 (particularly in Europe), relatively strong balance sheets should allow corporates to absorb some shocks.

What do we like? Quality & Value

Since COVID, we have argued for a material change in the fundamentals driving the market. Higher rates reverse some of the conditions that drove one of the longest periods of *Growth's* outperformance *of Value* in history (Exhibit 56). In 2023, pockets of *Growth* and *Value* outperformed at the same time and the dominant factor depended on the region: in the US 'Growth' outperformed (on the back of AI optimism), while in Europe and Japan 'Value' outperformed (Exhibit 57).

Exhibit 56: We continue to focus on a barbell approach
MSCI Indices. Relative price performance in local currency



Monthly Frequency until 1996. Daily Frequency from 1997 onwards

Source: Datastream, Goldman Sachs Global Investment Research

Exhibit 57: 2023 has seen pockets of growth and value outperforming at the same time
Value vs. growth, relative price return (in USD); MSCI indices

Source: Datastream, Goldman Sachs Global Investment Research

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We continue to argue that the binary approach to looking at either Growth or Value is no longer the correct one. We continue to focus on a barbell approach: combining quality, strong balance sheet and stable margin companies with deep value-cyclicals where valuation risks are limited. We like strategies providing exposure to companies that can compound earnings and returns through a combination of reinvestment and dividends over time. In contrast to the last cycle, more diversification across styles and regions, as well as a greater focus on valuation, should enhance returns over the course of 2024.

Exhibit 58 highlights our favorite implementations of the themes we prefer for 2024.

- **Global** Equity Strategy – 2024 Outlook: Home on the Range, 13 Nov 2023
- **US** Equity Strategy – 2024 Outlook: All You Had To Do Was Stay, 15 Nov 2023
- **Europe** Equity Strategy – 2024 Outlook: Attractive enough to buy back, 14 Nov 2023
- **Japan** Equity Strategy – 2024 Outlook: TSE corporate governance reform and net inflows to drive continued TOPIX upside, 14 Nov 2023
- **EM** Equity Strategy – 2024 Outlook: Relying on Rotation ahead of EM EPS "Lift-Off", 15 Nov 2023
- **Asia-Pacific** Equity Strategy – 2024 Outlook: Take targeted exposure in a complex macro context, 11 Nov 2023
- **China** Equity Strategy – 2024 Outlook: From Reopening to Rebalancing, 12 Nov 2023

Exhibit 58: Implementations of the themes we like

	US	Europe	Japan	Asia Pacific ex. Japan
US Exceptionalism	Beaten-down Cyclicals	US Exposure (GSSTAMER) FTSE 100 vs. UK Domestic (GSSTUKDE)	-	US Exposure (GSSZAPUS) vs. China Exposure (GSSZAPCN) Low vs. High exposure to China
Shareholder Return	Returning Cash to Shareholders (GSTHCASH) vs. Capex and R&D (GSTHCAPX)	Buyback (GSSTREPO)	Cross Shareholdings Unwind	Buyback High Div Yield with Growth (GSSZDIVG)
Quality	High Quality (GSTHQUAL)	[SHORT] Weak Balance Sheet (GSSTWBAL)	TSE Corporate Governance	Strong Balance Sheet (GSSZSBAL) High & Stable Margins (GSSZHMGN)
Duration	Growth stocks with high returns on capital	Pure Growth (GSSTGROW)	Japan Multibaggers	-
Structural Opportunities	-	Renewables (GSSBRNEW)	Japan reflation (GSJPREFL)	China Self-Sufficient/Rebalancing Make-in-India (GSCBIMII) Artificial Intelligence (GSSZAIGC) Defense

Source: Goldman Sachs, Goldman Sachs Global Investment Research

Contributors: Peter Oppenheimer, David Kostin, Tim Moe, Sharon Bell, Kinger Lau, Caesar Maasry, Ben Snider, Bruce Kirk, Guillaume Jaisson

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Government Bonds (3m N & 12m N): Lower, But Not Low

We are N bonds for 3 and 12m and expect most G10 ex-Japan yields to end 2024 close to, or slightly below, current levels. Higher yields point to positive total returns and a potential cushion for growth shocks, however, post the recent rally near-term return potential appears limited, and the degree of policy easing priced appears too large and too early. We are OW German/UK, N US and UW Japan 10y bonds. Lower core rates should help EMU sovereign spreads tighten, but Italian BTP spreads might remain wider owing to debt sustainability concerns.

From a hiking to an easing focus - bond yields peaking

Central banks across most G10 ex-Japan have likely reached the end of their tightening cycles, after considerable progress on inflation and, in some cases, a weakening growth outlook. While we expect them to start cutting rates towards 2H24, market-implied easing is considerably earlier, faster and larger than our economists' forecasts (Exhibit 59). That likely reflects the market placing greater weights on "left tail" scenarios of faltering growth, or more dovish central bank reaction functions in the event inflation cools more rapidly than expected. The opposite tail—in which central banks resume hiking due to stickier inflation—is probably limited by the proximity of inflation to central bank targets, and because many policymakers likely view their current stance as already restrictive.

Given our outlook for solid global growth but still above-target inflation through much of next year, we believe the downside skew in market pricing should be more pronounced beyond 2024, rather than during it: we would look to fade further easing priced versus our baseline, especially in countries that appear more resilient to a higher for longer rate environment, such as the US. The story may be different for other central banks that do not sport as large a deviation versus our modal outlook: our economists project the ECB, BoE, and BoC will be easing on the earlier side (probably 3Q24), with a weaker growth outlook driving the European central banks, and lower neutral rate considerations weighing on the latter. Japan stands out: we expect the BoJ to exit NIRP more slowly than market pricing implies.

We expect yields in most regions ex-Japan to end 2024 close to current levels, except for the Euro area where we could see larger declines. Specifically, we expect the 10y UST yield to trade around 4.5% by YE2024, and 10y bund yields to end the year around 2.25%. We expect more material declines at shorter and intermediate maturities (e.g., 2- and 5-years) across most regions as inflation approaches central bank targets, allowing markets to begin pricing at least weak central bank 'puts'.

In the US, all components of longer maturity yields have declined post a final hike since the 1980s, led by the expectation of real short rates (Exhibit 60). We expect a smaller decline this time, given the front end is pricing in more cuts than our baseline - a slower-to-ease Fed should limit the decline in the expectations component. Moreover, factors such as supply/demand imbalances and 'fiscal risk premium' considerations could limit the decline in the risk premium component of yields.

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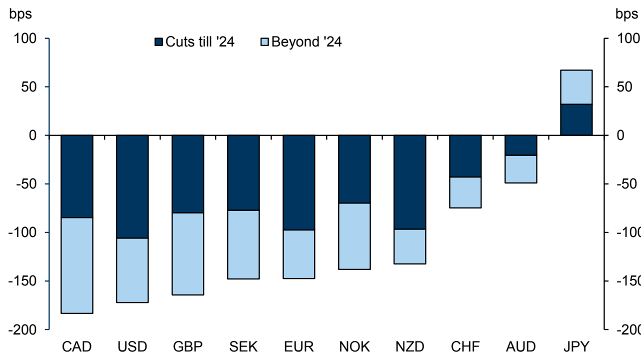
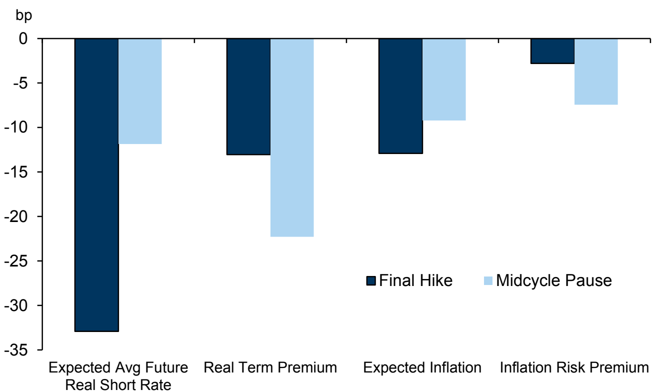
Exhibit 59: Markets are front-loading rate cuts particularly in the US, which we view as overdone
Policy rate changes priced across G10 economies



Source: Goldman Sachs Global Investment Research

Exhibit 60: All components of longer maturity US yields tend to decline following either the final hike of a cycle, or an extended midcycle pause
One year change in 10y Treasury yield components following rate hikes



*Yield decomposition based on the D'Amico, Kim and Wei (2018) model

Source: Goldman Sachs Global Investment Research, Federal Reserve

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In Europe, accommodative fiscal policy and a reduction of tail risks around sovereign credit should allow for a higher equilibrium rate and a higher trading range for Bund yields, but we expect spreads to remain elevated vs. the US for a few reasons. First, growth expectations—ours and consensus—remain much weaker for Europe than the US. Second, cooling inflation pressures should allow the ECB to cut a little earlier than the Fed. Finally, the fundamental pressure on peripheral sovereigns from a combination of high real rates, balance sheet run-off, slowing nominal growth, and deteriorating fiscal trajectories suggests that sovereign spreads will remain wide, and thus the outright funding levels for Italy in particular will remain uncomfortably high given the existing debt loads. On the latter, we remain sceptical that significant additional tightening can occur without a clearer inflection in debt sustainability arithmetic, and thus expect limited compression in BTP-Bunds through 2024. Our end-2024 target for 10y OAT-bund, BTP-bund, and Bonos-bund sovereign spreads are 60bp, 200bp, and 90bp, respectively.

Japan is one exception where we expect yields to rise by more than implied by forwards. Our economists expect the BoJ to further tweak the YCC reference rate to 1.25% alongside changing forward guidance to a tightening bias at the April 2024 MPM, followed by a formal abandonment of YCC and NIRP exit in October 2024. We expect this dynamic to lift 10y JGB yields to 1.3% by YE24.

Steeper yield curves but lower vol

Yield curves have been rangebound for much of this year, with most G10 2s10s curves remaining inverted. For next year, we see only mild bull steepening in the UST curve under our soft-landing base case. Our fair value models project -5 to -10bp steepening for UST 2s10s at the end of 2024, based on our economic forecasts of benign unemployment, further modest declines in inflation expectations, and gradual policy rate normalization. Our forecast implies less steepening than forwards, largely because we do not expect the rate cuts priced by YE24 to be realized, which should keep front-end pricing above market expectations.

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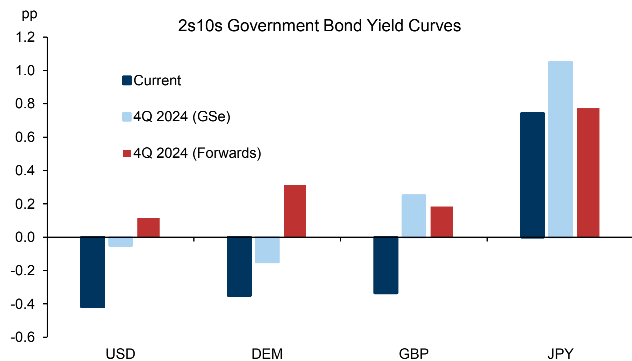
In Europe, our macro curve models suggest that the current EUR curves (2s10s or 5s30s)—either in OIS or Bunds—are broadly fair. On our forecasts, we do not anticipate significant changes to the macro inputs, but modest weakening of labor market data and ongoing moderation of inflation leading to a Q3 ECB cut suggest a more gradual steepening of most spot curves comparable to that implied by forwards. For yield curves, a key question is whether balance sheet run-off can continue while the ECB is cutting rates. On our base case, ECB cuts will likely be communicated as a downward 'normalization' of policy rates, which makes it more plausible that balance sheet normalization could run concurrently. This points to ongoing steepening risk in government bond curves. We expect German 2s10s to be -15bp at end 2024 from -35bp currently (Exhibit 61).

Unlike in the rest of G10, we expect bear (rather than bull) steepening of the JGB yield curve. This is in part because we believe the market has overestimated the chance of a near-term NIRP exit by the BoJ, by extrapolating the YCC tweak to the prospect of broader policy shifts, while underestimating the extent to which 10y yields can move. We maintain our 6m 2s10s OIS curve steepener trade recommendation.

While we had anticipated a transition to a lower rates vol regime this year, two shocks originating from the US (the SVB failure and the recent rebuilding of term premia) have seen volatility decline by less than we had expected. Looking ahead, we believe the transition to a lower vol regime is set to resume, and in our baseline soft landing economic view, both implied and realized rate vols across the vol surface should decline (Exhibit 62). Given policy rates are already viewed as restrictive in most economies, any additional central bank tightening due to sticky inflation will likely be more measured. On the downside, above-target inflation should limit the speed of central bank easing absent a deep recession, helping to curb front-end vol.

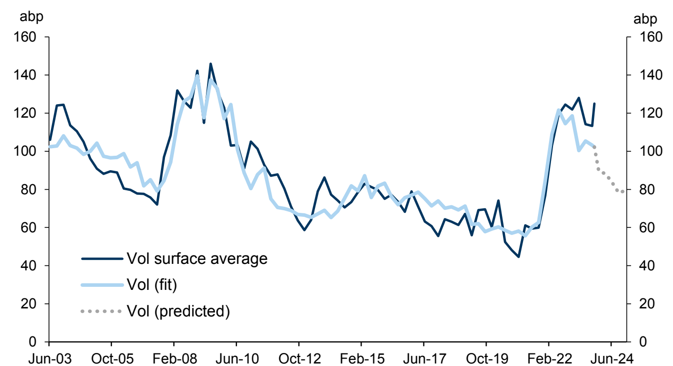
Exhibit 61: Yield curve steepening is likely to be less pronounced than forwards for the US and Germany, and more pronounced than forwards for Japan



Source: Goldman Sachs Global Investment Research, Bloomberg

Exhibit 62: We expect a transition to a lower rate vol regime from a starting point where vols look rich

Actual, fitted and predicted average volatility



Source: Goldman Sachs Global Investment Research

The combination of fading macro uncertainty and inertia in central bank policy rates should mean lower 'upper left,' i.e., short expiry, shorter tenor vol declines across most regions, and a steepening in the vol curve. We project that the lower levels of macro uncertainty should pull the entire surface lower by an average of 40abp. Given the more elevated growth risks we see in the Euro area and UK vs the US, we could see upper

left vol in the latter decline by more than the former two—we recommend selling 6m2y USD straddles versus a vega-neutral amount of 6m2y EUR straddles. Of course, there are risks here: the juxtaposition of elevated levels of supply and ongoing QT creates an environment where 'accidents' can occur more easily/often, keeping longer tenor vol bid, whereas a sharp slowdown and/or renewed recession fears could keep front end vol elevated.

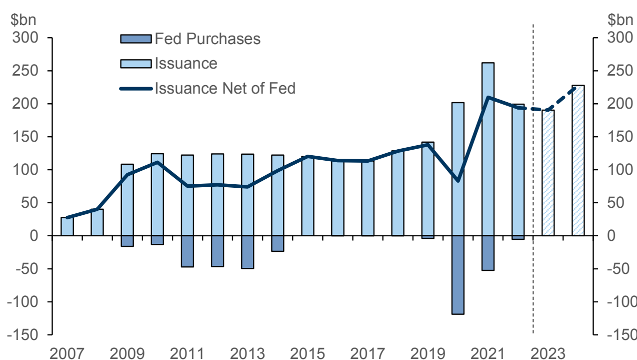
Record bond supply to further tighten swap spreads

Across the G10, we expect bond supply to remain elevated next year on a combination of higher funding costs and continued central banks balance sheet normalisation. In the US, unlike in 2023 when Treasury relied heavily on bill issuance, we expect supply to be concentrated in coupons. We expect net coupon issuance to increase from $1.03tn this year to $1.93tn next year (Exhibit 63), with 10yr equivalent duration supply to the private sector to average an unprecedented $228bn/month.

While record supply could push up longer maturity yields, especially in periods of supply/demand imbalances, and keep fiscal risk premium elevated for some time, we argued that increased duration supply by itself should not be a sustainable cause for yields to decouple from economic fundamentals, and we believe investors overestimate the structural impact of issuance on yield levels. Rather, we think a stronger implication of elevated bond supply is a further narrowing of swap spreads across the curve.

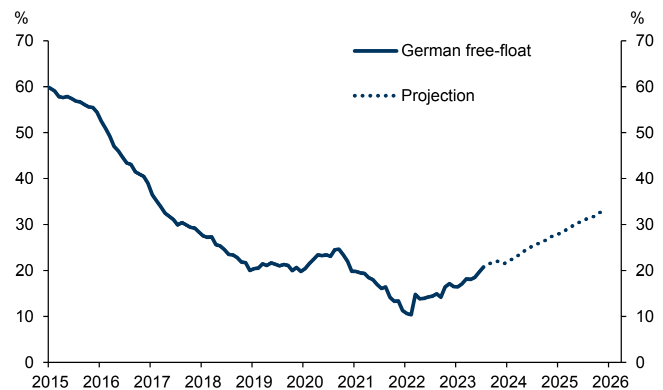
In Europe, though primary deficits are likely to narrow as energy-related support is phased out, funding needs should decline only modestly due to increasing interest payments. And we estimate that the acceleration of ECB QT will more than offset government efforts, and maintain the share of Bund holdings in private hands firmly on an increasing trajectory (Exhibit 64). In that context, given the low availability of safe assets was an important driver of strength over the past decade, we look for a continued cheapening in Bunds against swaps.

Exhibit 63: Duration supply net of Fed purchases is set to hit new all-time highs, putting pressure on swap spreads
Monthly average 10y equivalent issuance, $bn



Source: Goldman Sachs Global Investment Research

Exhibit 64: The Bund free-float is increasing, as QT flows more than offset debt consolidation efforts
Free float as a share of debt securities outstanding (in %)



Source: Haver, Goldman Sachs Global Investment Research

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Quantitative Tightening set to continue

For most G10 ex-Japan, we expect quantitative tightening to continue well into next year. In the US, we expect QT to continue until the end of 3Q24, before the Fed tapers the pace by half until the end of 1Q25. By that point, we estimate that reserves would be in the 'ample' portion of the demand curve (around $2.2-$2.8tn), the region in which the Fed has previously indicated it would like to operate. That said, the Fed's balance sheet unwind is the most aggressive reduction in size and coincides with a significant uptick in sovereign debt supply. This raises both the risk of intermediation bottlenecks in money markets and risks of broader Treasury market dysfunction, both of which could lead to an earlier termination of QT than we envisage.

In Europe, our economists expect the ECB to announce an earlier end to PEPP reinvestments in 1Q24, featuring a gradual runoff starting in 2Q24. Though we think normalizing balance sheet policy is an important objective—and one that should be fully set in motion before the focus shifts too firmly towards rate policy easing—we expect the ECB to proceed carefully. On historical relationships, we would expect the additional PEPP flows to have a modest impact on government bonds yields, though the ultimate market impact will hinge on the prevailing macro conditions. Our base case is that an improvement in growth and a modest degree of relief via lower core yields should contain the impact of QT on sovereign spreads.

Exhibit 65: G10 yield forecasts and deviation from forwards

Pricing as of Nov 10th

G10 10-Year Yield Forecasts										
	USD	DEM	GBP	JPY	CAD	CHF	SEK	NOK	AUD	NZD
Current	4.61	2.72	4.34	0.85	3.82	1.13	2.89	3.89	4.62	5.12
4Q23	**4.75**	**2.75**	**4.40**	**1.00**	**3.90**	**1.20**	**3.00**	**3.90**	**4.70**	**5.30**
1Q24	4.75	2.60	4.20	1.15	3.90	1.20	3.00	3.90	4.70	5.30
2Q24	4.65	2.50	4.15	1.25	3.85	1.10	2.80	3.80	4.60	5.20
3Q24	4.60	2.35	4.10	1.30	3.80	1.10	2.60	3.60	4.55	5.10
4Q24	**4.55**	**2.25**	**4.00**	**1.30**	**3.75**	**1.00**	**2.50**	**3.50**	**4.50**	**5.00**
1Q25	4.50	2.25	3.90	1.30	3.75	1.00	2.50	3.45	4.45	4.90
2Q25	4.50	2.25	3.80	1.30	3.75	1.00	2.50	3.45	4.40	4.80
3Q25	4.50	2.25	3.80	1.30	3.75	1.00	2.50	3.40	4.35	4.75
4Q25	**4.50**	**2.25**	**3.70**	**1.30**	**3.75**	**1.00**	**2.50**	**3.40**	**4.30**	**4.70**
1Q26	4.50	2.25	3.70	1.30	3.75	1.00	2.50	3.40	4.30	4.70
2Q26	4.50	2.25	3.65	1.30	3.75	1.00	2.50	3.40	4.30	4.70
3Q26	4.50	2.25	3.65	1.30	3.75	1.00	2.50	3.40	4.30	4.70
4Q26	**4.50**	**2.25**	**3.60**	**1.30**	**3.75**	**1.00**	**2.50**	**3.40**	**4.30**	**4.70**
1Q27	4.50	2.25	3.60	1.30	3.75	1.00	2.50	3.40	4.30	4.70
2Q27	4.50	2.25	3.60	1.30	3.75	1.00	2.50	3.40	4.30	4.70
3Q27	4.50	2.25	3.60	1.30	3.75	1.00	2.50	3.40	4.30	4.70
4Q27	**4.50**	**2.25**	**3.60**	**1.30**	**3.75**	**1.00**	**2.50**	**3.40**	**4.30**	**4.70**

Deviation from Forwards (bp)										
	USD	DEM	GBP	JPY	CAD	CHF	SEK	NOK	AUD	NZD
1Q24	18	-9	-13	20	17	11	19	11	8	17
2Q24	8	-18	-18	25	15	2	2	4	-4	5
3Q24	4	-33	-24	25	14	2	-16	-14	-10	-6
4Q24	**-2**	**-44**	**-35**	**21**	**11**	**-9**	**-27**	**-22**	**-17**	**-16**

Source: Goldman Sachs Global Investment Research, Bloomberg

For details see:

2024 Global Rates Outlook: Lower, But Not Low, Nov. 13, 2023

Contributors: Praveen Korapaty, George Cole, Bill Zu, Simon Freycenet, Ravi Raj,

Gustavo Pereira

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Credit (3m N & 12m N): Back in the saddle

We are N credit for 3 and 12m given relatively tight credit spreads and peak credit quality behind us. Current valuations point towards lower carry-driven excess returns vs. 2023, but stronger yields support should translate into higher total returns. We expect a relatively benign default cycle with default rates peaking at 4.6% and 3.6% through 1H2024 in the US and Europe respectively. We are neutral IG vs. HY, USD vs. EUR and EMBI. Our relative value views are more centered around thematics: owning oversold left tail risks and markets that have been dislocated for technical reasons.

DM Credit: Long duration, neutral credit risk

Our modal view for 2024 centres on three ingredients: 1. Modestly tighter spreads and modestly lower yields, resulting in low excess returns but decent total returns given the starting point for yields (Exhibit 66); 2. A balanced supply/demand technical backdrop with net supply growing at 3.2% and 3.5%, respectively, in the USD and EUR markets (IG and HY combined), a slower than the post-global financial crisis period. This decline in net issuance reflects the weaker incentives for active forms of re-leveraging, which will likely keep primary market activity skewed towards refinancing; and 3. Rising financial distress in the low end of the quality spectrum.

For most of 2023, we have been recommending staying short duration and long credit risk as way to take the other side of market participants' excessive scepticism vis-à-vis the odds of a soft landing for the US economy. In some ways, we expect 2024 to be a mirror image of the past year, given the tighter starting level of spreads, higher starting level for yields, and the end of the hiking cycles in both the US and Euro area. For duration, the prospect of continued steady disinflation in 2024 coupled with a one-tailed distribution of the forward path of monetary policy not only puts a ceiling on a potential back-up in yields but should also (finally) allow volatility in rates markets to decline.

Exhibit 66: Our 2024 credit spreads forecasts
USD and EUR spread forecasts

Sector	Updated through Nov 15, 2023					
	Current	2023Q4	2024Q1	2024Q2	2024Q3	2024Q4
USD spreads						
IG	118	121	119	117	115	115
IG Fin	136	140	137	134	131	130
IG Non-Fin	106	110	109	108	107	106
High Yield	381	385	380	375	370	369
EUR spreads						
IG	158	166	163	161	160	158
IG Fin	192	199	194	190	187	184
IG Non-Fin	138	145	143	142	141	139
High Yield	440	460	455	452	451	449

Source: Bloomberg, iBoxx, ICE-BAML, Goldman Sachs Global Investment Research

Rising financial distress is likely to result in increased default rates. 2023 has seen a modest increase in defaults from the rock-bottom levels of 2021 and 2022. We expect further acceleration over the first half 2024, as higher funding costs and refinancing

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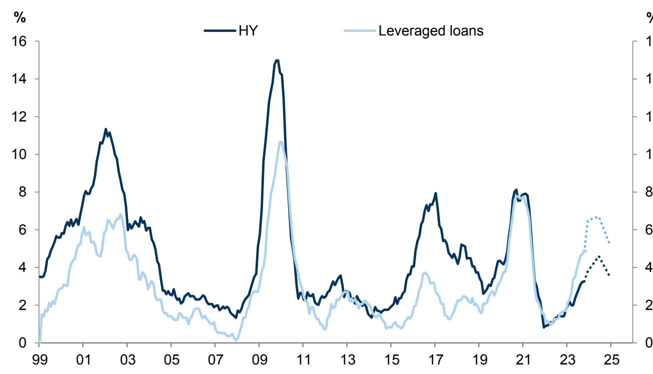
needs tighten their grip on the weakest and most over-leveraged issuers. We also expect floating-rate structures to be more acutely affected than their fixed-rate peers, given lower aggregate credit quality and the immediacy with which higher policy rates are already affecting interest expenses. In the US, we forecast a peak in the trailing 12-month issuer-weighted default rate of 6.7% through 1H2024 for leveraged loan issuers, before declining to 5.2% by 4Q2024. For HY bond issuers, we expect the same rate will peak at 4.6% through 1H2024, slightly above the long-run average of 4%, before settling to 3.5% for the full year ending in 4Q2024 (Exhibit 67).

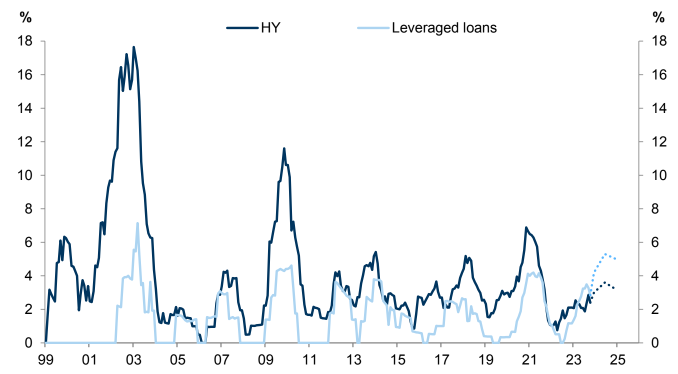
In Europe, we see a similar pattern and forecast peak default rates of 3.6% and 5.3%, for the HY bond and leveraged loan markets, respectively, by end of H12024, followed by some decline through year-end to 3.2% and 5.0%, respectively (Exhibit 68).

Exhibit 67: We expect US default rates to peak in 1H2024
12-month trailing issuer-weighted default rates in the US HY bond and leveraged loan markets



Source: Moody's, Goldman Sachs Global Investment Research

Exhibit 68: The default backdrop should be more benign in Europe
12-month trailing issuer-weighted default rates in the European HY bond and leveraged loan markets



Source: Moody's, Goldman Sachs Global Investment Research

We favour adding risk exposures to sectors that have been chronic underperformers for the past two years, and see compelling alpha opportunities within structured products. The mediocre index excess returns that we envision for next year naturally shift the opportunity set to potential pockets of value in the left tail of the spread distribution. In the USD IG market, left tail risk is most oversold in the banking sector (Exhibit 69). We continue to think this repricing is overdone, given the sector's ability to actively mitigate the ongoing pressure on capital and liquidity positions. In the USD HY market, we see value in Wirelines, Cable & Satellite, and Media & Entertainment, all of which have lagged the broader market for almost two years. Of course, many of the challenges facing these sectors are unlikely to dissipate next year, but we think the excess premium relative to the HY index offers adequate compensation. In the EUR IG market, the Real Estate sector continues to dominate the left tail, and we recommend adding risk selectively on account of both valuations and the more predictable path of monetary policy.

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Exhibit 69: Valuations for the banking sector remain dislocated in the USD IG market
USD IG Banks vs. non-financials spread ratio

Source: iBoxx, Goldman Sachs Global Investment Research

In structured products, we have strong conviction in three sources of alpha: agency MBS, new issue BBB CMBS, and middle-market CLOs. For agency MBS, the combination of current valuations, the probability for a sustained decline in rates volatility, and supportive supply technicals should pave the way for outperformance, especially vs. USD IG. That said, we remain cognizant that the combination of Fed QT and the continued pressure on banks' balance sheets greatly limit the scope for a return to the post-COVID tights for the mortgage basis. For new issue BBB CMBS tranches, while plenty of room remains for further downward pressure on CRE prices, the sharp widening in BBB CMBS spreads now provides investors with an attractive compensation against future losses. Lastly, for middle-market CLOs, AAA-rated tranche spreads in the new issue market have remained at the high end of their recent range and underperformed their syndicated loan CLO peers.

There are some upside risks for credit, but cautionary flags are flying high. 1. Earlier, and more aggressive, rate cuts than our economists are projecting. Should policy rates move lower than we expect, market participants are likely to extend the expected life of the current expansion, resulting in a potential catalyst for spreads to move back to their pre-hiking cycle levels. 2. An even more pronounced decline in net supply than we currently project. This would reflect a more aggressive deleveraging mindset in the face of higher funding costs, and possibly fuel a supply/demand imbalance that would cause spreads to tighten more than our baseline.

As for potential downside risk, one concern is a delayed recovery in earnings growth that would expose the fragility of corporate balance sheet liquidity positions. As highlighted by our economists, the ongoing negative momentum in global manufacturing business surveys could persist if the current, higher cost of capital, environment pushes corporations to manage inventories more conservatively or if goods demand softens more than anticipated. Such a scenario would pose clear downside risk to growth and could fuel a repricing of the recession premium.

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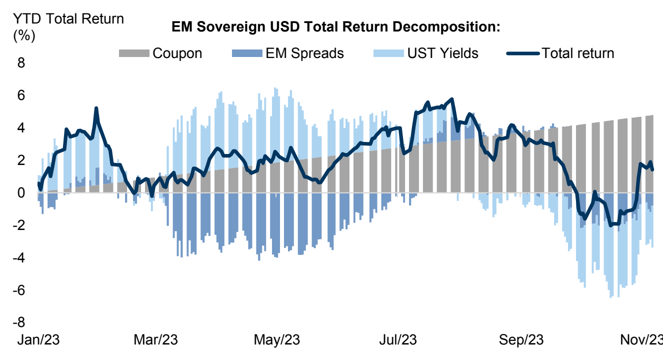
EM Sovereign Credit: Modest Spread Tightening and High Total Returns

Limited spread tightening amid already tight valuations. EM sovereign credit performance has been resilient this year, with roughly flat spreads and slightly positive total returns, which is significantly better than prior years. Most of the returns this year have been driven by the coupons (Exhibit 70), where HY (excluding distressed credits) in particular has done well to cushion against the move higher in UST yields. Moreover, the large group of sovereigns in debt distress have delivered positive total returns this year.

Still, spreads across EM sovereign USD bonds remain tight, both outright and compared with other spread products. Under our economists' forecast of 'higher for longer' DM rates, we expect only a small spread compression at the index level. More specifically, **we think spreads at an index level will tighten to ~410bp over the next 12 months**, as the disinflationary process in developed markets continues but DM central banks begin to cut rates only gradually towards the end of next year. Under our global rates team's UST yield forecast, this points to a total return of ~8%. Within EM sovereign credit, we think best carry opportunities are among BB-rated credits, or by extending duration in IG. In addition, we think parts of distressed credits (which make up more than 5% of the index) continue to offer value and alpha opportunities for investors.

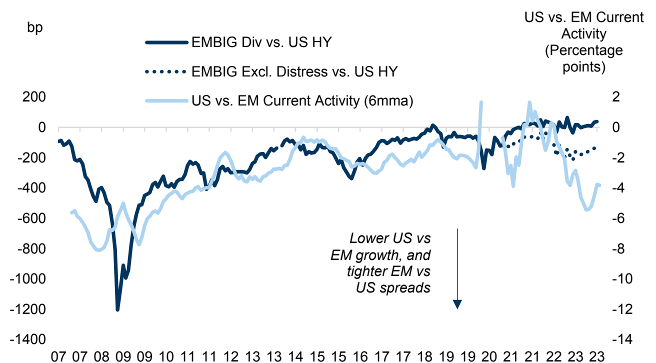
EM sovereign spreads tend to outperform US HY on lower US growth. While the value proposition of EM sovereigns continues to look unattractive vs. US corporates, and our DM credit team expects US HY spreads to tighten by more than EMBI Global Diversified, we would flag that EM sovereign credit spreads tend to outperform US HY spreads when US growth underperforms, which means EM credit acts as a hedge against lingering fears that a US recession could still materialise (Exhibit 71).

Exhibit 70: Coupons drove most of the return in EM sovereign credit



Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 71: EM spreads outperform US HY on lower US growth



Source: Bloomberg, Goldman Sachs Global Investment Research

For details see:

2024 Global Credit Outlook: Back in the saddle, Nov. 13, 2023

2024 Structured Credit Outlook: Drifting Back on Track, Nov. 13, 2023

EM Market Outlook 2024: The Other Side of the Storm, Nov. 15, 2023

Contributors: Lotfi Karoui, Roger Asworth, Michael Puempel, Spencer Rogers (DM Credit); Sara Grut (EM Credit)

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Commodities (3m N & 12m N): Three Reasons to Go Long Commodities

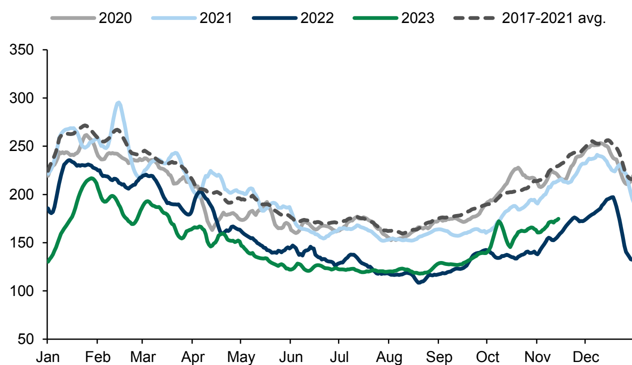
We are N commodities for 3m and 12m on the back of an attractive return potential and diversification benefits in the event of further geopolitical/energy price shocks. From a cyclical point of view, fading monetary policy drag, receding recession fears and reduced industrial destocking should support demand and spot prices in 2024. At the same time OPEC carry, refining tightness and green metals demand should provide structural support. We are bearish US natural gas (no 2024 net demand growth) and battery metals (deepening supply glut). Supply disruptions and a colder winter are key upside risks, while disappointments on the manufacturing cycle and higher than expected oil supply represent the main downside risks to our view.

Three reasons to go long commodities

The GSCI total return index is roughly flat YTD, on concerns about demand from rate hikes, some renewed recession fears, manufacturing destocking, and on oil supply beats. However, we expect an improved cyclical backdrop to support commodity prices next year as the drag from these headwinds fades. More core disinflation implies that the Fed and ECB are done hiking, that real disposable income will rise, and that central banks will be increasingly willing to deliver insurance cuts if growth were too slow. This all supports our belief that the drag from financial conditions on GDP growth is easing, which in our view will support commodities demand growth. Furthermore, we remain cautiously optimistic that industrial activity has troughed, particularly in Europe, as improving consumer demand and recovering exports to China should help consolidate a turn in the inventory-cycle and improve commodities demand in 2024 (Exhibit 72).

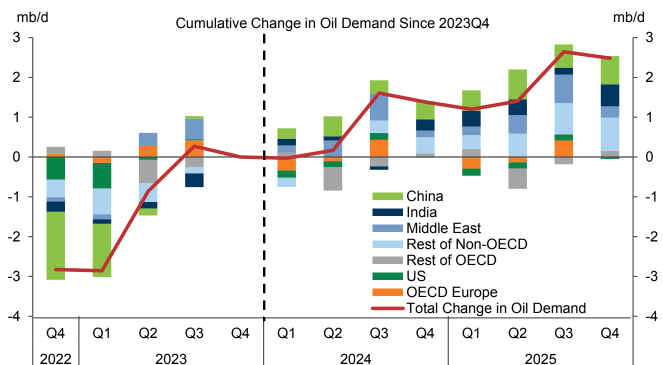
In contrast to industrial commodities, demand for commodities more exposed to services activity such as oil has been solid this year, especially in emerging markets (Exhibit 73). We expect oil demand to remain solid in 2024 on robust services activity, which, along with moderation in US supply growth and low OPEC supply together should support prices towards the top of the $80-100/bbl range.

Exhibit 72: European natural gas industrial demand is picking up
NW Europe industrial demand for gas (7dma), mcm/d



Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 73: EM oil demand rises further



Source: IEA, Kpler, JODI, EIA, National Sources, Goldman Sachs Global Investment Research

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In addition to cyclical support from above-consensus global GDP growth and a nascent recovery in manufacturing, we also expect structural support to commodity returns from OPEC-driven carry, refinery tightness, and strong green metals demand.

We believe that OPEC has been targeting high timespreads and low inventories with its production cuts over the last year, and will continue to do so in 2024, by assertively exercising its higher-than-usual pricing power. With Saudi profits supported by OPEC group cuts, and commercial OECD stocks only modestly below their historical average, we believe OPEC will be incentivized to keep the curve backwardated in 2024, leading to elevated carry from holding crude futures (Exhibit 74). At the same time, very high refining utilization and low spare capacity should continue to support oil product prices.

Turning to the industrial metals complex, demand has been supported by significant structural strength in the green economy—particularly in China—which has acted as a counterweight to the broader manufacturing malaise this year. We continue to expect a robust green demand environment ahead, with strong policy support underpinning China's onshore pipeline of green investment, attractive solar economics and policy-related incentives in the US, and accelerating investment needs in the EU, further reinforced by second-round effects from power-grid demand (Exhibit 75). This green demand boost and increasingly stagnant supply dynamics, feed into our view for progressively tighter aluminum and copper fundamentals over the course of 2024/25.

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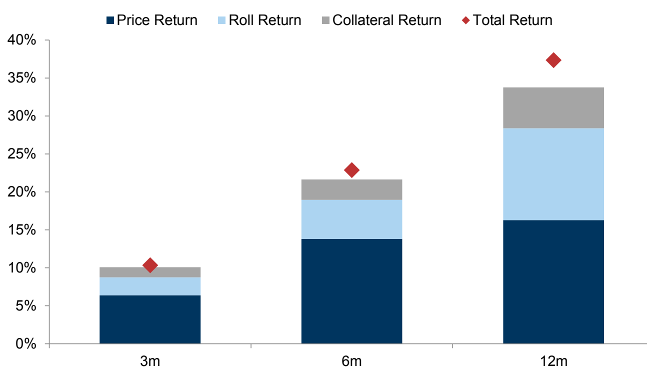
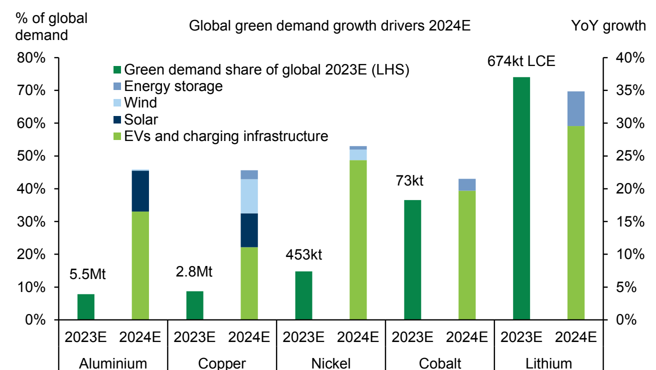
Exhibit 74: We expect a backwardated oil market to offer significant carry
Brent total return forecasts and component contribution, %



Note: Total return is computed as the product of price, roll, and collateral return while the bar size indicates each individual component.

Source: Goldman Sachs Global Investment Research

Exhibit 75: Global green demand for aluminium and copper is set to grow by 20+% in 2024E



Source: Goldman Sachs Global Investment Research

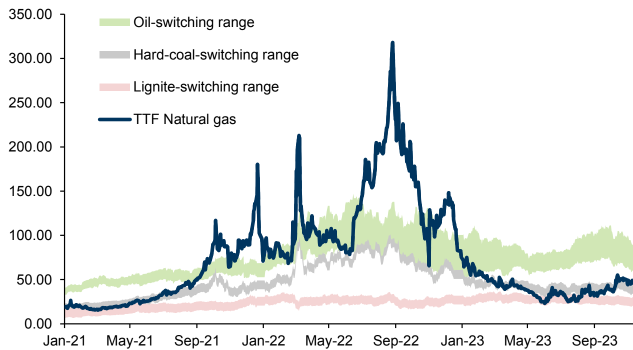
On top of cyclical and structural support to our baseline commodity returns, energy and gold can also be an effective hedge against negative supply shocks, from geopolitical or other developments, in scenarios where other assets (especially risk assets) suffer from lower growth.

As we recently discussed, potential escalation of the ongoing Middle East tensions is an example of how supply shocks could lead to significant rallies in oil and gas prices (Exhibit 76). While we see a severe supply downside risk scenario, such as a potential interruption of trade through the Strait of Hormuz, as highly unlikely, the physical nature

of energy markets suggests the resulting rally in energy prices would likely be sizable and immediate. Gold would also likely see increased inflows on any potential geopolitical escalation (Exhibit 77), and tactically we would view a potential selloff in gold as a buying opportunity, as we see an environment with elevated risk channels ahead playing into gold's hedge qualities.

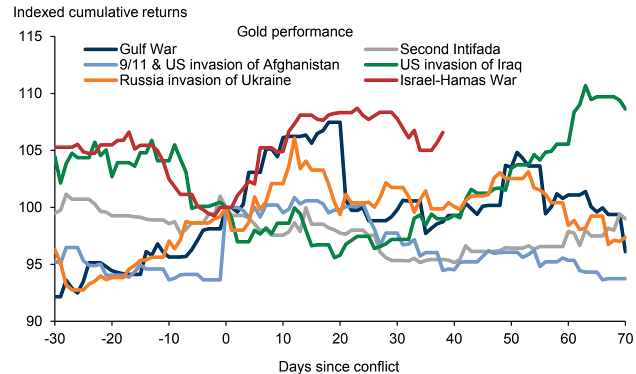
Exhibit 76: Absorbing tightening shocks in the still fragile European natural gas market may require prices to rise sharply

TTF prices and estimated ranges that incentivize switching vs. different fuels, EUR/MWh



Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 77: Gold prices have risen substantially since the start of the Israel-Hamas war



Source: Goldman Sachs Global Investment Research, Bloomberg

While we see value in the complex in 2024, we see downside risks from uncertainty in the cyclical backdrop. Specifically, if activity in the goods sector does not pick up in 2024, leading to an extension in this year's manufacturing malaise, we would expect pressure on European natural gas and industrial metals prices. Furthermore, we see downside risk from upside oil supply surprises because of higher-than-expected price elasticity or lower OPEC cohesion.

Finally, we are bearish on some parts of the complex where markets are facing an abundance of supply, with insufficient demand to absorb growing production. In our view, US natural gas prices will need to decline relative to current forwards to incentivize power demand for gas and absorb associated gas production growth in order to manage storage. We also see continued downside in battery metals prices as the size of upcoming surpluses has not been fully realized in prices, and subsidy phaseouts for electric vehicles in China and some European countries pose headwinds for demand.

For details see:

Commodity Views - 2024 Outlook: Three Reasons to Go Long Commodities, Nov. 12, 2023

Contributors: Samantha Dart, Daan Struyven, Nicholas Snowdon, Daniel Moreno, Aditi Rai

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FX: Living in a Dollar World

2023 was another strong year for the Dollar. While we do not expect Dollar strength to erode quickly, elevated valuation and more balanced global growth point to gradual depreciation. A resilient cyclical picture in the US, support from capital flows and the lack of clear challengers abroad suggest a bumpy path on a shallow Dollar depreciation trajectory. Faster inflation normalisation with weaker activity and risk of energy price shocks open the distribution to earlier and more rapid rate cuts in Europe. Safe haven FX like Yen and CHF are likely to continue to struggle vs. the Dollar but can outperform vs. other FX. EM FX valuations are less cheap and prospects depend on the Dollar.

In our 2023 Outlook, we acknowledged many reasons for the Dollar to depreciate—most notably, its lofty valuation and a relatively benign global growth outlook—but argued that the Dollar's depreciation from the peak would be relatively shallow because we were still "Waiting for a Challenger"; for the Dollar to go down, it would require better capital return prospects abroad, especially in the major currencies. Now, as we look ahead to 2024, we find ourselves in much the same place. The Dollar is still highly valued, and we expect the global economy to be returning to a better balance over the coming year, which should weigh on the Dollar over time.

But, across the majors, our economists are most above consensus on US growth, and higher yields should provide a high bar to beat for total return prospects. This should at least limit (if not prevent altogether) the prospect for reversing the capital flows that have helped the Dollar sustain its high valuation over the last decade. The risks to our view mostly lean towards a Dollar that is even "stronger for longer" if it turns out that other economies cannot handle the level of restriction that the US requires. Emerging Market currencies have also already appreciated substantially against the rest of the G10, so valuations are now more challenging on a trade-weighted basis, and much of the prospect for outsized returns from here depend critically on the Dollar itself. Overall, our view is that the Dollar's strength will not erode quickly or easily.

USD: Finding a Better Balance

We stick with our view that depreciation from the late-2022 peak will be shallow and bumpy, and we expect another year of a relatively resilient Dollar. Even though the Dollar is still highly-valued on a trade-weighted basis, we expect only modest depreciation over the coming year. While the economy is moving into better balance, strong growth and above-target inflation mean that we are likely still a long way off from easier US monetary policy, which tends to be the marker for sharper Dollar depreciation cycles. US outperformance is another important impediment to more substantial Dollar downside, in our view. With the Dollar's high valuation over much of the last decade owing to portfolio flows from other DM economies, we think the end of the Dollar's cyclical run will require better capital returns abroad.

Our forecasts for robust, trend-pace US growth with inflation gradually declining towards target suggest that an on-hold Fed with rates that remain higher for longer is an

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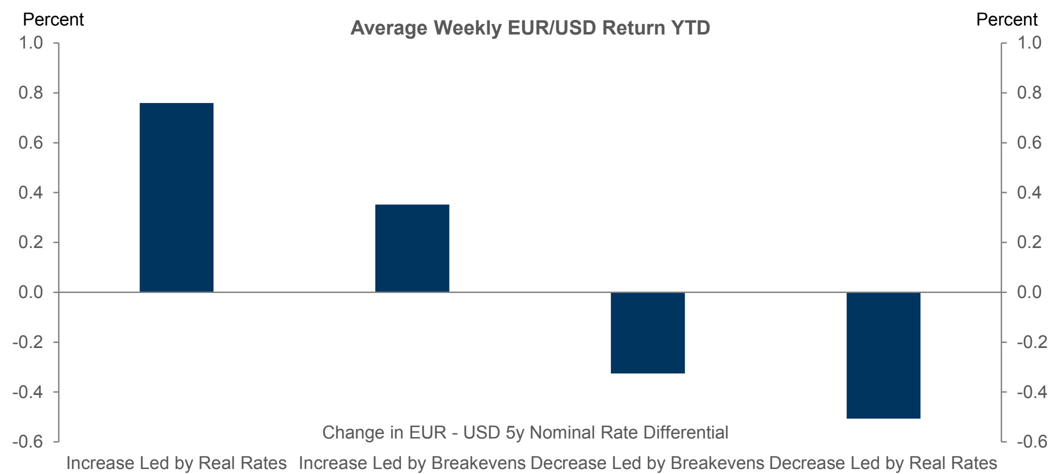
appropriate policy stance. This is especially important for the FX outlook as it raises a growing risk of policy divergence next year. As we have highlighted, there are important differences in the sensitivity of economies to rising rates, particularly through variations in the housing market. US activity has been remarkably resilient this year, despite the 525bp of rate hikes, while the same cannot be said for most of the rest of the G10. This is already reflected in our forecast of relative US resilience and only a slow decline in the Dollar, but it demonstrates why we still see some upside risks if it turns out that a more balanced growth outlook requires more divergent policy settings.

However, stronger activity data by itself is not enough to be outright bullish on the Dollar. Our forecast of strong growth but falling inflation should ultimately allow some global pressures to relax and weaken the Dollar. And, if strong data lead to higher inflation risk premia but limited policy action, that tends to have a less powerful impact on the USD. By the same token, the main downside risk to the Dollar comes from the prospect of earlier non-recessionary rate cuts than in our base case, in which case the Dollar could weaken more sharply especially against cyclical G10 and EM currencies. If, on the other hand, FOMC officials begin to worry that resilient growth could impede progress towards their inflation goal, restarting the hiking cycle could see the Dollar re-test the 2022 highs. Ultimately, FX tends to respond to real rate differentials (Exhibit 78). And, if the Fed begins to more actively consider further hikes at some point next year, there are not many DM Dollar "challengers" that would be able to respond.

Exhibit 78: Real rate differentials tend to drive FX



Source: Haver Analytics, Goldman Sachs Global Investment Research

EUR: Starting from Stagnant

As the Euro area economy moves on from the energy shock and into a better balance with the rest of the world, it should slowly support the currency's recovery back towards recent highs of around 1.10 by year-end. But the path from here to there is likely to be challenging at first.

Our baseline represents a narrow path with key risks on both sides, but the domestic ones are mostly to the downside. Most importantly, the recent data trend is

inconsistent with a stronger currency. If nothing changes, the Euro should fall. The cyclical picture is quite divergent to the US, and there have been some worrying signs that weak demand is now spilling into a softer labor market. If it continues, this would interrupt the consumption-led recovery that we anticipate. On the other hand, the key upside risks to our forecast come mainly from abroad. First, more substantial policy stimulus from China could assist the Euro area and offset some of the global spillovers from more restrictive US monetary policy. Second, a faster move towards non-recessionary rate cuts in the US would likely compress the real rate differential and support the Euro.

We maintain our view that EUR/USD cannot move much further towards "fair value" levels around 1.20 until there is clear evidence of limited scarring from the energy price spike and other factors that have weighed on the Euro area for the last couple of years (and, in a broader sense, much of the last decade).

CNY: Policy Pushes Back

While the precise mix of macro impulses will shift going into 2024 we expect a continuation of cyclical weakness which is likely to keep the currency under pressure, at least in 1H. However, whether this cyclical pressure manifests in a weaker currency is, to a large extent, a function of policymaker preference. The PBoC has kept the USD/CNY daily spot fixing around 7.18 for almost two months, restraining the move higher in spot USD/CNY. Although a weaker currency would help ease financial conditions and support activity, policymakers remain concerned about large-scale capital outflows and have emphasised the importance of FX stability.

We expect that policy will likely keep cyclical and capital flow pressures at bay and keep the USD/CNY cross rate steady around current levels of 7.30 over the next 3-6 months. As we move deeper into the year, the prospects for some gradual strengthening in the Renminbi are better as interest rates start moving lower globally, and casting the value proposition in Chinese rates in a less negative light. But equally, if US rates take another leg higher, it will be increasingly tricky for Chinese policymakers to maintain currency stability against the Dollar while also supporting a weak economy with lower rates. At any rate, the combination of stability (with some risk of further weakness) and negative carry is still likely to keep CNY firmly among the funders in a currency portfolio.

Other FX:

Within G10**,** we look for further **JPY** weakness over the coming months to 155 followed by persistent depreciation pressures that limit the scope for appreciation over the rest of the year. We still expect a bumpy path along the way with somewhat limited depreciation overall given the risks of intervention, possibly an earlier NIRP exit, and the potential for some yield relief over the very near term. But without a proper hiking cycle from the BoJ and cuts from the Fed, or without a US recession, the scope for any significant Yen strength looks limited. We also expect near term **GBP** weakness with a grind down to 1.18 over the coming months until gradually recovering over the rest of the year as global growth becomes better balanced and BoE policy becomes less of an outlier. Our baseline macro outlook of US outperformance versus Europe in the earlier

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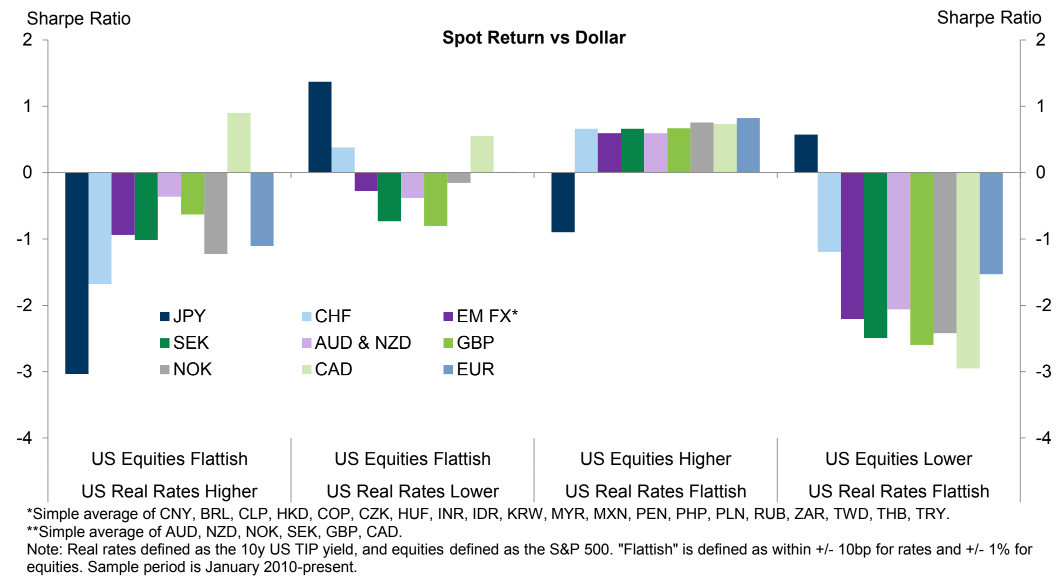
half of the year should benefit **CAD** and **CHF**, while weighing on the Scandis (**NOK, SEK**) and high-beta **AUD** and **NZD.** However, as growth becomes more balanced in the second half, we expect to see AUD and NZD outperform. And, with some eventual sequential improvement in Euro area growth, both SEK and NOK should appreciate over the next 12 months with SEK having arguably the most to gain from a soft landing that allows for non-recessionary cuts.

Exhibit 79: A backdrop of "flattish" rates and higher equities tends to weigh on the Yen, even when the broad Dollar weakens



*Simple average of CNY, BRL, CLP, HKD, COP, CZK, HUF, INR, IDR, KRW, MYR, MXN, PEN, PHP, PLN, RUB, ZAR, TWD, THB, TRY.
**Simple average of AUD, NZD, NOK, SEK, GBP, CAD.
Note: Real rates defined as the 10y US TIP yield, and equities defined as the S&P 500. "Flattish" is defined as within +/- 10bp for rates and +/- 1% for equities. Sample period is January 2010-present.

Source: Bloomberg, Goldman Sachs Global Investment Research

In EM, we forecast that total returns for the high-yielding currencies of Latin America (**BRL, COP** and **MXN**) will again outperform other EM currencies in 2024, at least until we move decisively away from a strong Dollar world. On **USD/NJA** crosses, a pick-up in the global goods cycle should help to offset lower domestic consumption from elevated policy rates across the region. As a result, we think the currencies of small open economies in Asia will outperform those of domestically driven ones and, within the low-yield NJA currencies, we are most constructive on **KRW** and **THB**. Meanwhile, in the **CEE** economies, the rebalancing of macroeconomic should enable the region to return to its 'low-yielder' status. While risks to Euro area and regional growth are likely skewed to the downside in the near term, as the global manufacturing cycle turns and the impulse from financial conditions becomes less negative in H2, this should contribute to positive returns for both **HUF** and **PLN**.

For details see:

- 2024 Global FX Outlook: Living in a Dollar World, November 10, 2023
- EM Market Outlook 2024: The Other Side of the Storm, November 15, 2022

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Calendar: Key events in 2024

Date	Region	Event
End of 2023		
1 Dec	Global	G20 New Delhi summit
Early to mid-Dec	China	Politburo meeting on economic policies
13 Dec	Switzerland	Head of State (Federal Council) & Presidential & Vice-Presidential Elections
14 Dec	Euro Area & UK	ECB and BoE Monetary Policy Meeting
Q1 2024		
13 Jan	Taiwan	Presidential/ legislative election
15-19 Jan	Global	World Economic Forum Annual Meeting
19 Jan-2 Feb	US	Government Funding deadline
22/23 Jan	Japan	BoJ Monetary Policy Meeting (with Outlook Report)
25 Jan	Euro Area	ECB Monetary Policy Meeting
28 Jan	Finland	Presidential Election
30/31 Jan	US	FOMC meeting
1 Feb	UK	BoE Monetary Policy decision
Early to mid-Mar	China	2024 “Two Sessions”
7 Mar	Euro Area	ECB Monetary Policy Meeting
Mid-Mar	Japan	Shunto (spring wage negotiation) 1st result
17 Mar	Russia	Presidential Election
18/19 Mar	Japan	BoJ Monetary Policy Meeting
19/20 Mar	US	FOMC meeting
21 Mar	UK	BoE Monetary Policy decision
31 Mar	Ukraine	Presidential Election
Q2 2024		
Apr/May	India	General Elections
11 Apr	Euro Area	ECB Monetary Policy Meeting
14 Apr	South Korea	Parliamentary elections
Mid to late Apr	China	Politburo meeting on economic policies
25/26 Apr	Japan	BoJ Monetary Policy Meeting (with Outlook Report)
30 Apr/1 May	US	FOMC meeting
May	South Africa	General Elections
9 May	UK	BoE Monetary Policy decision
June	Global	G7 Italy Summit
6 Jun	Euro Area	ECB Monetary Policy Meeting
6-9 Jun	European Union	European Parliament Election
9 Jun	Belgium	Parliamentary Election
11/12 Jun	US	FOMC meeting
13/14 Jun	Japan	BoJ Monetary Policy Meeting
20 Jun	UK	BoE Monetary Policy decision
Q3 2024		
Jul	US	Republican National Convention
12-14 Jul	Global	G20 Brazil Summit
18 Jul	Euro Area	ECB Monetary Policy Meeting
Mid to late Jul	China	Politburo meeting on economic policies
30/31 Jul	US & Japan	FOMC meeting & BoJ Monetary Policy Meeting (with Outlook Report)
Aug	US	Democratic National Convention
1 Aug	UK	BoE Monetary Policy decision
Sep	Austria	Parliamentary Election
Sep	Czechia	Parliamentary Election (upper house)
12 Sep	Euro Area	ECB Monetary Policy Meeting
17/18 Sep	US	FOMC meeting
19 Sep	UK	BoE Monetary Policy decision
19/20 Sep	Japan	BoJ Monetary Policy Meeting
30 Sep	US	FY Budget Expiring
Q4 2024		
17 Oct	Euro Area	ECB Monetary Policy Meeting
25-27 Oct	Global	International Monetary Fund and World Bank Group Annual Meeting
30/31 Oct	Japan	BoJ Monetary Policy Meeting (with Outlook Report)
6/7 Nov	USA	FOMC meeting
Oct/Nov	ASEAN	ASEAN 45th summit
5 Nov	US	Presidential elections
7 Nov	UK	BoE Monetary Policy decision
Dec	Egypt	Presidential Election
Early to mid-Dec	China	Politburo meeting on economic policies
12 Dec	Euro Area	ECB Monetary Policy Meeting
17/18 Dec	US	FOMC meeting
18/19 Dec	Japan	BoJ Monetary Policy Meeting
19 Dec	UK	BoE Monetary Policy decision
To be scheduled		
28 Jan 2025 (latest)	UK	General Election

Source: Compiled by Goldman Sachs Global Investment Research

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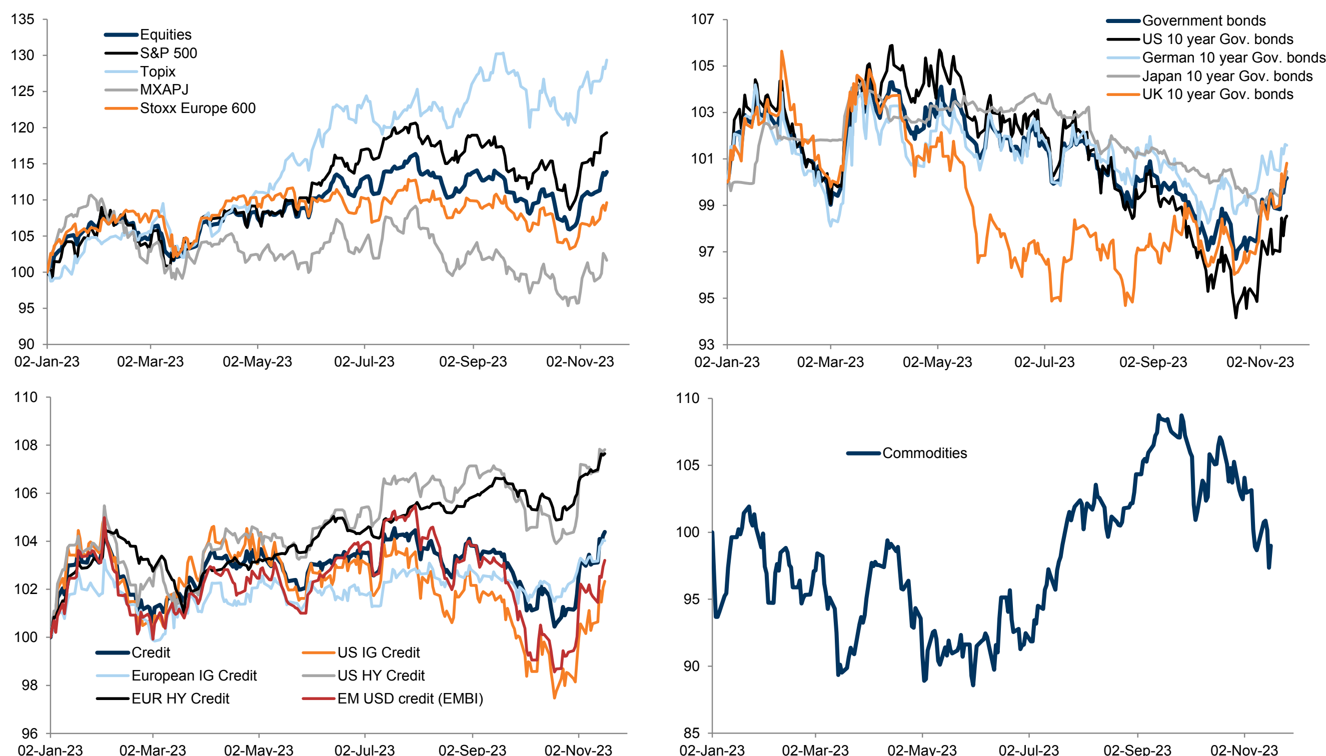
Asset class forecast returns and performance

Exhibit 80: Goldman Sachs' 3-, 6- and 12-month return forecasts by asset class

Asset Class	Benchmark Weight	3-month Total Return		6-month Total Return		12-month Total Return	
		Local currency	In USD	Local currency	In USD	Local currency	In USD
Equities	**35**	**1.5**	**-0.5**	**3.5**	**2.1**	**8.8**	**9.2**
S&P 500	40	0.1	0.1	0.5	0.5	5.7	5.7
STOXX Europe 600	30	-0.3	-4.8	2.8	0.1	9.1	10.3
MSCI Asia Pac ex Japan	20	5.4	3.8	7.5	6.6	13.3	13.4
TOPIX	10	4.7	1.1	9.1	5.3	11.6	11.2
10 yr. Government Bonds	**45**	**-0.8**	**-3.4**	**0.6**	**-1.2**	**3.6**	**4.0**
US	40	-1.4	-1.4	0.1	0.1	3.3	3.3
Germany	40	0.1	-4.4	1.8	-0.9	5.4	6.5
Japan	10	-2.4	-5.9	-3.4	-6.8	-3.9	-4.2
UK	10	-0.2	-5.2	1.9	-1.7	5.0	5.5
Credit	**10**	**0.0**	**-1.4**	**2.0**	**1.2**	**6.1**	**6.4**
Bloomberg Barclays US IG	40	-1.1	-1.1	0.8	0.8	4.6	4.6
Bloomberg Barclays US HY	20	1.1	1.1	3.3	3.3	8.0	8.0
iBoxx EUR IG	20	0.4	-4.1	2.1	-0.6	5.5	6.6
BAML EUR HY	10	0.9	-3.6	3.1	0.4	7.3	8.4
JP Morgan EMBI Div.	10	0.1	0.1	2.6	2.6	7.9	7.9
Commodities (S&P GSCI)	**5**	**4.9**	**4.9**	**12.9**	**12.9**	**20.9**	**20.9**
Cash	**5**	**1.1**	**-1.1**	**2.3**	**1.0**	**4.4**	**5.0**
US	50	1.3	1.3	2.7	2.7	5.3	5.3
Euro area	50	0.9	-3.6	1.9	-0.8	3.6	4.7
FX		**3m target**	**Return**	**6m target**	**Return**	**12m target**	**Return**
EUR/$		1.04	-4.5	1.06	-2.6	1.10	1.0
$/YEN		155	3.6	155	3.6	150	0.3

Source: Datastream, Bloomberg, Goldman Sachs Global Investment Research

Exhibit 81: Performance of asset classes YTD



Source: Datastream, Goldman Sachs Global Investment Research

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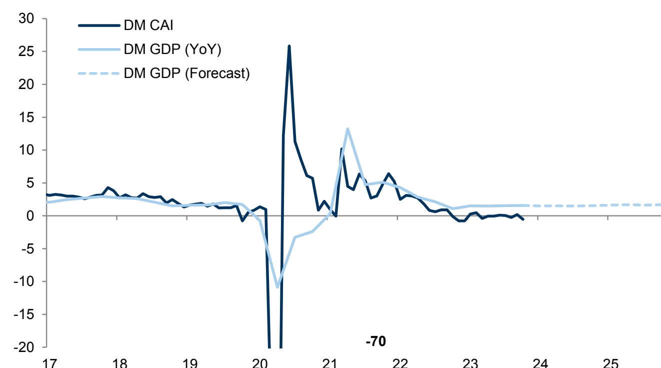
Key macro forecasts

Exhibit 82: GS forecasts across asset classes

	Return in % over last 12 m	3 m	1 m	YTD	Current Level	Forecasts 3m	6m	12m	Unit	Up/ (downside) in % 3m	6m	12m
S&P 500 ($)	16.3	3.7	3.4	19.3	4514	4500	4500	4700	Index	-0.3	-0.3	4.1
Stoxx Europe 600 (€)	10.0	1.4	1.5	10.7	456	450	460	480	Index	-1.3	0.9	5.3
MSCI Asia-Pacific Ex-Japan ($)	4.4	0.4	2.0	1.7	501	515	525	550	Index	2.9	4.9	9.9
Topix (¥)	24.7	7.1	4.3	29.4	2391	2500	2600	2650	Index	4.6	8.7	10.8
10 Year Government Bond Yields												
US	-1.8	-0.3	3.5	-1.4	4.44	4.75	4.70	4.57	%	31 bps	26 bps	13 bps
Germany	-1.7	1.7	2.6	2.7	2.59	2.67	2.55	2.30	%	8 bps	-4 bps	-29 bps
Japan	-1.1	-0.8	0.2	0.5	0.73	1.08	1.20	1.30	%	35 bps	47 bps	57 bps
UK	-4.3	6.5	3.8	0.8	4.11	4.30	4.17	4.05	%	19 bps	7 bps	-6 bps
Credit												
Bloomberg Barclays US IG	3.4	1.4	3.8	2.3	114	120	118	115	Bps	6 bps	4 bps	1 bps
Bloomberg Barclays US HY	8.4	1.9	3.0	7.8	389	382	377	369	Bps	-7 bps	-12 bps	-20 bps
iBoxx EUR IG	3.6	1.9	2.2	4.4	161	164	162	159	Bps	3 bps	1 bps	-2 bps
BAML EUR HY	8.2	2.3	1.9	7.6	444	457	453	450	Bps	13 bps	9 bps	6 bps
JP Morgan EMBI Div.	5.8	0.7	3.8	3.2	426	422	418	410	Bps	-4 bps	-8 bps	-16 bps
Commodities												
WTI	-6.3	-4.9	-11.7	-4.7	76	82	88	89	$/bbl	7.2	15.0	16.4
Brent	-10.3	-4.2	-10.7	-5.0	81	86	92	94	$/bbl	6.6	14.0	16.5
Copper	1.2	-0.4	3.4	-2.3	8168	8400	8850	10000	$/mt	2.8	8.3	22.4
Gold	12.6	4.5	2.8	9.1	1981	2050	2050	2050	$/troy oz	3.5	3.5	3.5
FX												
EUR/USD	5.4	0.0	2.9	2.0	1.09	1.04	1.06	1.10		-4.5	-2.6	1.0
USD/JPY	6.4	2.4	-0.1	13.4	149.6	155.0	155.0	150.0		3.6	3.6	0.3
GBP/USD	5.6	-2.5	2.1	3.4	1.24	1.18	1.20	1.25		-5.1	-3.5	0.5
AUD/USD	-2.2	1.3	2.2	-4.1	0.65	0.62	0.64	0.66		-4.7	-1.6	1.5
USD/BRL	-10.4	-1.9	-2.6	-7.3	4.89	4.80	4.70	4.60		-1.9	-3.9	-6.0
USD/INR	2.0	0.2	0.0	0.7	83.3	84.0	83.0	82.0		0.9	-0.3	-1.5
USD/CNY	1.7	-0.9	-0.9	4.2	7.25	7.30	7.30	7.15		0.7	0.7	-1.3

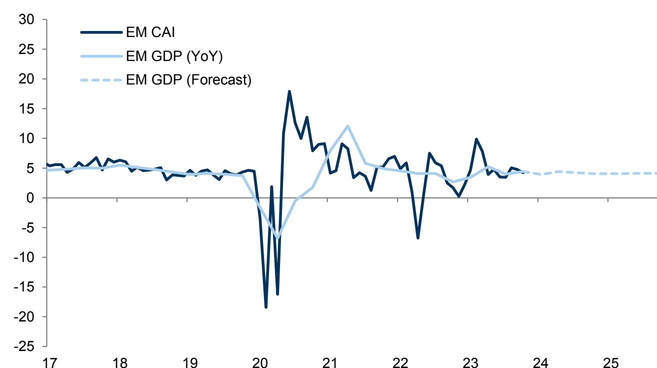
Source: Datastream, Bloomberg, Goldman Sachs Global Investment Research

Exhibit 83: DM GDP growth vs. GS CAI and GDP forecasts



Source: Goldman Sachs Global Investment Research

Exhibit 84: EM GDP growth vs. GS CAI and GDP forecasts



Source: Goldman Sachs Global Investment Research

Exhibit 85: Real GDP growth

*Bloomberg Consensus

% yoy	2023E GS	2023E Cons.*	2024E GS	2024E Cons.*	2025E GS
USA	2.4	2.3	2.1	1.0	1.9
Japan	1.8	1.8	1.4	1.0	1.1
Euro area	0.5	0.5	0.9	0.7	1.5
UK	0.6	0.5	0.6	0.4	1.0
China	5.3	5.2	4.8	4.5	4.2
India	6.4	7.0	6.3	6.2	6.5
Brazil	3.1	3.0	1.6	1.6	2.4
Russia	2.9	2.0	2.1	1.3	1.1
Advanced Economies	1.6	1.5	1.6	0.9	1.7
Emerging Markets	4.2	3.9	4.0	3.8	4.0
World	2.7	2.5	2.6	2.1	2.7

Aggregates are Market FX - Weighted

Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 86: Headline Inflation

% yoy	2022	2023E	2024E	2025E
USA	5.4	2.9	2.3	2.1
Japan	2.5	3.2	3.1	2.4
Euro area	8.4	5.5	2.7	2.1
UK	9.1	7.4	3.0	2.3
China	2.0	0.3	1.3	2.0
India	6.7	5.7	5.1	4.6
Brazil	5.8	4.7	4.1	3.6
Russia	13.7	5.9	9.2	5.4
Advanced Economies	6.3	4.1	2.6	2.1
Emerging Markets	6.9	5.0	4.7	3.7
World	6.5	4.5	3.5	2.8

Source: Goldman Sachs Global Investment Research

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Disclosure Appendix

Reg AC

We, Christian Mueller-Glissmann, CFA, Cecilia Mariotti, Andrea Ferrario, Peter Oppenheimer, David J. Kostin, Timothy Moe, CFA, Lotfi Karoui, Kamakshya Trivedi, Praveen Korapaty, George Cole, Caesar Maasry, Samantha Dart, Daan Struyven and Nicholas Snowdon, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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