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TOP *of* MIND

HIGH BOND YIELDS: HERE TO STAY?

Despite the start of long-awaited central bank easing cycles, G10 bond yields have reset higher in recent months, led by the US. What accounts for this unusual behavior, and will yields remain elevated amid tariff and broader economic developments? PGIM Fixed Income's Gregory Peters, MIT's Ricardo Caballero, and GS' David Mericle and William Marshall express varying levels of sympathy for the drivers of this reset: a reassessment of the inflation/Fed outlook, the neutral rate, and the term premium. While Peters argues that persistently above-target inflation should help support 10y Treasury yields closer to the top end of their recent 3.5-5% range, Marshall believes the further underlying disinflation Mericle expects should help yields end the year around—or modestly below—current levels. Looking further ahead, Caballero argues that 10y rates could settle well below current levels as he believes the future neutral rate could prove lower than many think. But with the risks skewed toward higher rates, we explore the implications for risky assets and portfolios if bond yields surge again.

Everywhere I look, I see more—not less—inflation… Inflation has reset at a higher level, and that's a genie that's hard to put back in the bottle.

- Gregory Peters

Two mechanisms will likely exert significant downward pressure on the equilibrium rate over time. The first is a rebuilding of the equity risk premium… The second mechanism is a global phenomenon known as 'indebted demand'.

- Ricardo Caballero

While I think the market is right to rethink neutral, I worry it's at risk of overshooting, making the same mistake as last cycle but in the opposite direction.

- David Mericle

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Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to www.gs.com/research/hedge.html.

The Goldman Sachs Group, Inc.

Macro news and views

We provide a brief snapshot on the most important economies for the global markets

US

Latest GS proprietary datapoints/major changes in views

- We recently raised our December 2025 core PCE inflation forecast to 2.6% (from 2.4%) given the additional tariffs we now expect, namely a 10% tariff on critical imports.

Datapoints/trends we're focused on

- Fed policy; we expect two 25bp cuts this year in June and December followed by another cut in June 2026.
- Trump policies, which we expect to slightly weigh on growth this year but slightly boost growth in 2026.
- DeepSeek LLM, which could raise macroeconomic upside over the medium term if its cost reductions catalyze a faster buildout of AI platforms/applications.

Japan

Latest GS proprietary datapoints/major changes in views

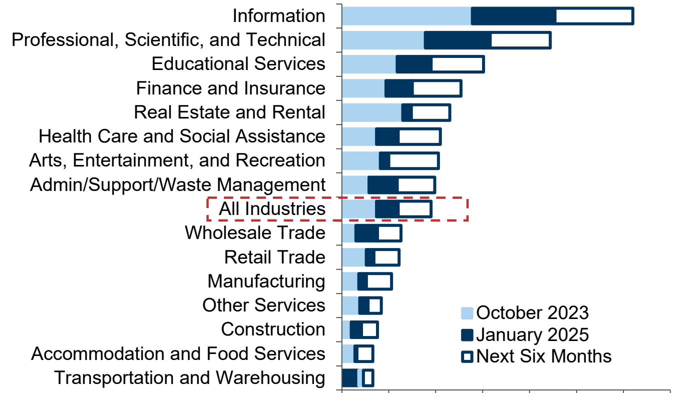
- No major changes in views.

Datapoints/trends we're focused on

- BoJ policy; we expect the BoJ to continue hiking rates at a steady pace of roughly two hikes per year as underlying inflation increases gradually, with the next hike in July, but the risks are skewed toward a faster and/or longer sequence of hikes than markets currently expect.
- US tariff impacts; we see limited impacts on the Japanese economy from US tariffs on other countries, including China and Mexico, though a non-negligible increase in the exports of some Japanese products is possible.

(Deep)Seeking AI adoption

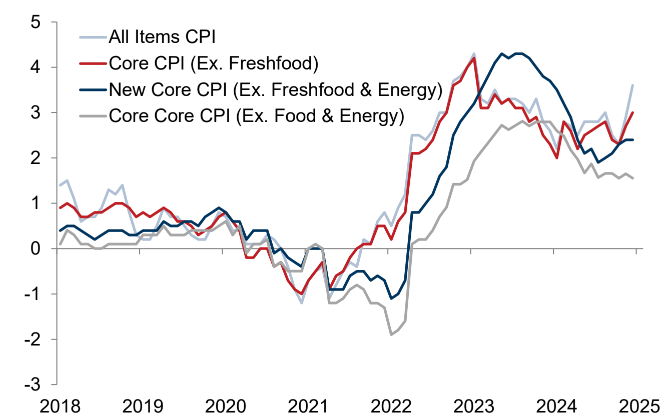
Share of US firms using AI by sector, %



Source: US Census Bureau, Goldman Sachs GIR.

Japanese inflation still running warm

Japanese inflation, % chg, yoy



Source: Haver Analytics, Goldman Sachs GIR.

Europe

Latest GS proprietary datapoints/major changes in views

- No major changes in views.

Datapoints/trends we're focused on

- ECB policy; we expect the ECB to continue delivering sequential 25bp rate cuts to 1.75% in July.
- EA growth; we expect below-consensus real GDP growth of 0.7% yoy in 2025, reflecting structural headwinds—including high energy prices and competitive pressures from China—trade policy uncertainty, and ongoing fiscal consolidation.
- BoE cuts, which we expect to remain on a quarterly path.
- German elections, which could result in some additional fiscal support, but it is unlikely to be sizable or swift enough to meaningfully support growth in 2025.

Emerging Markets (EM)

Latest GS proprietary datapoints/major changes in views

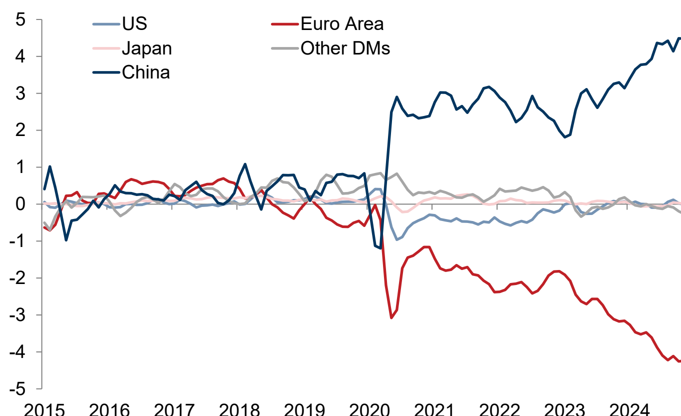
- No major changes in views.

Datapoints/trends we're focused on

- China growth; we expect growth to slow from 6.6% in 4Q24 to 4.0% in 1Q25 (qoq ann.) as stronger 4Q24 activity owed to temporary factors and recent stimulus measures are unlikely to provide sustained support to growth.
- India's growth slowdown, which we don't view as overly worrying, as policy tightening was likely an important contributor; we expect growth to reaccelerate to >6% this year given the RBI's liquidity boost.
- EM inflation; we expect unfavorable FX headwinds in CEEMEA and LatAm to stall EM disinflation this year.

China is eating Europe's lunch

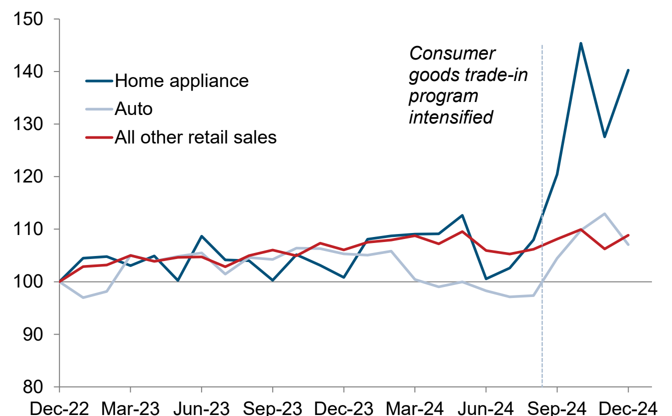
Market share in global export volumes, chg relative to 2015 avg, pp



Source: Haver Analytics, Goldman Sachs GIR.

China: an only-temporary cash-for-clunkers boost

Retail sales, index, 12/2022=100, seasonally adjusted



Source: Haver Analytics, Goldman Sachs GIR.

High bond yields: here to stay?

After falling to fresh lows in September as the Fed embarked on its long-awaited rate cutting cycle, 10-year US Treasury yields have reached as high as 4.8% in recent weeks before retracing to still well-above September lows, leading to a reset higher of bond yields globally even as most major central banks remain in easing mode. What to make of this unusual bond yield behavior, whether bond yields will remain elevated as markets continue to digest tariff and broader economic developments, and the implications for risky assets and investor portfolios, is Top of Mind.

We first speak with David Mericle, GS Chief US Economist, and Gregory Peters, Co-CIO of PGIM Fixed Income, to explore the drivers behind this bond yield repricing, which GS senior markets strategist Vickie Chang confirms is unusual—but not unprecedented—in the history of Fed easing cycles. Mericle breaks down the rates move into three fundamental components: a repricing higher of the Fed path on inflation concerns, an upward reassessment of the longer-term neutral interest rate, and a significant rise in the term premium, and we dig into each of them in turn.

Mericle argues that the underlying trend remains toward further US disinflation, which Trump's likely policies will somewhat offset but not derail. While the recent tariff developments leave Mericle viewing further Fed cuts this year as a very close call, he maintains that, with this inflation backdrop, market pricing as a probabilistic statement about possible Fed paths in the coming years is still a bit too hawkish. Peters is more concerned about inflation, arguing that everything from the labor market to supply chain trends to recent climate events suggest a persistently above-target inflation environment regardless of whether US policy shifts ultimately prove inflationary.

What about the neutral rate? Mericle and Peters both have some sympathy for the market's upward reevaluation of neutral given the strength of the economy and the level of financial conditions. But the market's 4%+ current estimate for the nominal neutral rate is above Peters' and Mericle's low-to-mid 3% modal range for this cycle, suggesting that the market may have gone too far. Mericle and GS US Economist Manuel Abecasis argue that the market may be overshooting neutral in this cycle for the same reason that it undershot it in the last cycle—investors are inferring too much about the economy's long-term state from its current state, which is being affected by forces that will eventually fade.

MIT's Ricardo Caballero goes a step further, estimating a future neutral rate of around 2.5%, and possibly even lower. Caballero doesn't buy common arguments around the economy's resilience and AI-driven productivity growth as reasons to believe in a structurally higher neutral rate. Rather, he argues that a rebuilding of the equity risk premium—which has all but disappeared over the last few years—and global fiscal consolidation as governments worldwide try to reduce their massive debt loads will significantly weigh on equilibrium interest rates over time, pushing down the neutral rate.

And what about the term premium? Peters and GS Head of US Rates Strategy William Marshall note that higher debt levels and growing fiscal sustainability worries have been an important driver of the higher term premium, and Peters expects this upward pressure to persist in light of the concerning US fiscal trajectory. While Marshall also sees continued fiscal pressures on the term premium, consistent with our view that the fiscal trajectory is likely to get worse before it gets better, he thinks the further underlying disinflation Mericle expects should offset some of the upward impact on the term premium.

So, what does all this mean for Treasury yields? Peters argues that fiscal concerns and the persistently higher inflation environment he expects should keep 10-year Treasury yields closer to the top end of their recent 3.5-5% trading range, while Marshall expects yields to end the year around or modestly below current levels. And GS Head of European Rates Strategy George Cole argues that this benign US rates path alongside the cyclical relief he expects in Europe and the UK should lead 10-year Bund and Gilt yields lower to 1.9% and 4.0%, respectively, by end-2025.

Despite their fairly benign forecasts, we explore how vulnerable risky assets are to a renewed rise in yields. GS markets strategists argue that the speed and drivers of the move would determine the asset impacts, with a gradual growth-driven rise in yields likely to be well-digested by equities and corporate credit. They caution that risky assets would be much more vulnerable in the event of a sharp inflation-driven move higher. In such a scenario, Peters would worry most about the leveraged loan and private credit markets within the credit universe, where risks have migrated from the US high-yield market, which he notes is in its best shape in a long time.

So, how should investors be positioned? GS Head of Asset Allocation Research Christian Mueller-Glissmann believes that higher bond yields alongside current elevated equity valuations and less positive equity/bond correlations argue for increased bond allocations—and lower equity allocations—in multi-asset portfolios, with bonds now standing a better chance of outperforming cash.

While Peters also prefers bonds to cash and sees a role for bonds in portfolios given their attractive carry and protective benefits, he is not particularly excited about Treasuries today given their volatility, which he expects to remain a feature of the market for some time. Peters sees more compelling opportunities in ex-US sovereign bond markets as diverging inflation trends allow G10 central banks to each chart their own paths, which he argues opens up "a big opportunity in global bond markets."

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Interview with David Mericle

David Mericle is Chief US Economist at Goldman Sachs. Below, he provides an economist's perspective on the reset higher of US bond yields and argues that the market might have overshot a bit in raising its estimate of the long-run neutral rate.

Allison Nathan: In the years before the pandemic, the 10-year Treasury yield was in the 2s. Now it's in the high 4s. How did we get here?

David Mericle: Here's an economist's perspective on long-term interest rates. We can break the story into three parts. First, the market's expectation for Fed policy in coming years has become more hawkish recently, especially since the Republican sweep in the elections. Second, the market has substantially raised its assessment of what the neutral rate is likely to be in the longer term, which gives you a sense of where interest rates might be on average at a more distant horizon when we don't know what state the economy will be in. And third, the term premium has risen quite a bit from a very low level at the end of last cycle.

Allison Nathan: Let's take those pieces one at a time. First, what is the market expecting the Fed to do? And how does that compare to your view?

David Mericle: Market pricing implies nearly two cuts this year and then a roughly flat funds rate at close to 4% for the next few years. We expect the Fed to cut twice this year and once next year to 3.5-3.75%. I'm not certain that's exactly what they'll do, and recent tariff developments make further cuts this year a very close call. But I do feel that market pricing as a probabilistic statement about possible Fed paths in the coming years is still a bit too hawkish. That close to 4% funds rate that the market is pricing for the next few years is probably quite close to the top of the range of where the FOMC might plausibly see neutral and be willing to leave policy on hold indefinitely. Because there's always some chance of large rate cuts in a potential recession—and we see low risk, but there's never no risk—then for close to 4% to make sense as a probability-weighted average outcome, you have to believe that there's a reasonable chance the Fed might hike. And indeed, the market puts the chance of a rate hike at around 25% over the next year, and I think that's too high.

So, this first contributor to the rise in long-term interest rates—what the market expects for the funds rate path over the next few years—looks too high to me.

Allison Nathan: Why don't you think Trump's policies could lead to rate hikes? Don't the higher tariffs that are so much in focus right now, as well as fewer low-wage immigrant workers and tax cuts mean higher inflation? And couldn't that mean higher interest rates?

David Mericle: That is exactly the thought that drove bond yields to their recent peak, and directionally that made some sense, but I think the impact of Trump's policies is likely to be smaller and the risks are more two-sided than that move reflected. Neither our expectation of a decline in immigration to moderately below the pre-pandemic annual pace nor our expectation of modest new tax cuts should boost inflation much. And, despite all of the recent ups and downs in tariff headlines, the tariffs on imports from China and some other items that we expect would only provide a moderate and one-time boost to inflation on top of the current disinflation trend, causing inflation to fall by less than it otherwise would in 2025—from the high-2s to the mid-2s instead of to the low-2s—but not to rise. I think the FOMC could look through that.

Allison Nathan: Could a more extreme version of Trump policies plausibly create more of an inflation problem and at least raise a debate about hiking? What are the biggest risks to your view?

David Mericle: A universal tariff would have a much larger effect and push inflation into the low 3s. Even then, I think Fed officials would set a very high bar to hike from a starting point that they already see as meaningfully above neutral in response to a one-time price level increase. Larger tariffs would also have a more negative effect on the economy and likely on the equity market, which could cut in a dovish direction for the Fed. That's what happened during the 2019 trade war, and the Fed wound up cutting three times.

The other risk would be if the immigration crackdown is so severe that it not only reduces the flow of new immigrants but makes companies hesitant to employ the far larger stock of unauthorized immigrants already in the US. That's 4-5% of the total US labor force and 15-20% in some industries, and we estimate that these immigrants earn 20% less on average, so that would be costly and potentially very disruptive.

Allison Nathan: Let's discuss the second reason you gave for the rise in long-term rates, the neutral rate reassessment. Last cycle the market thought neutral was very low, now it thinks it's much higher. What's your take?

David Mericle: Markets have a habit of inferring too much from current conditions about some alleged "new normal" long-term state of affairs. In the last cycle, the market, like many central bankers and economists, concluded that neutral was and always would be very low, maybe 2-2.5% nominal and barely positive in real terms. We disagreed, basically because it didn't seem that surprising that the recovery was slow and painful in the aftermath of a major financial crisis, which has nearly always been true throughout history. There were persistent non-monetary policy headwinds after the financial crisis—private sector deleveraging, disruptions to bank credit intermediation, and fiscal austerity—but they weren't truly permanent, and so it seemed dangerous to infer that because the economy wasn't booming at low interest rates, we would always need ultra-low rates to stimulate enough demand to get to full employment.

The market has raised its implicit estimate of neutral dramatically this cycle to over 4% nominal, presumably

because we ran the experiment of taking the funds rate much higher and seeing what happened, and the economy has performed well. So, while I think the market is right to rethink neutral, I worry it's at risk of overshooting, making the same mistake as last cycle but in the opposite direction. Those post-financial crisis headwinds are gone, and now we have two powerful non-monetary policy tailwinds boosting demand: a primary federal deficit 5% of GDP wider than it has historically been at full employment, and resilient risk sentiment that has muted the transmission from a higher funds rate to tighter financial conditions. Those forces won't be with us forever either, and when they're not, we might find that the economy doesn't perform as well as it is now with a funds rate of 4% or higher.

We have kept our estimate of long-run neutral at 3-3.5% nominal from last cycle to this cycle. Long-run neutral is not a concept I find particularly useful for thinking about where monetary policy should be today, because policymakers ought to take account of other forces influencing demand, but it is useful for thinking about long-term rates, when those other forces might more plausibly balance out over time.

So, on this second contributor to higher long-term rates, neutral, I think the market is again a bit too high.

Allison Nathan: On the third reason, why has the term premium risen so much from last cycle? Does that make sense to you?

David Mericle: Toward the end of last cycle, model-based decompositions of bond yields told us that the term premium had turned negative. We knew that was a big change from prior cycles, but it seemed to make sense—no one my age in the US had seen serious supply shocks. Modern business cycles instead appeared to be driven by fluctuations in demand, and in a demand-driven recession, since demand is weak, inflation will be low and central banks will aim to lower real rates, so your bonds should pay off when your risky assets are falling in value. And the thought was, you're supposed to pay a premium for something that provides insurance, not receive one, so the term premium should be negative.

Well, a pandemic and a major war in Europe were powerful reminders that supply shocks are not just quaint relics of history. So, we've learned some important lessons, and there have been some other post-pandemic developments that also argue for a higher term premium.

First, inflation risk isn't as negligible as we thought. Second, supply shocks absolutely can still happen, so you can't count on bond returns and stock returns being as reliably negatively correlated as we assumed last cycle. Third, there's a lot more government debt now because fighting the pandemic recession was expensive, and if there's more supply you have to offer a higher interest rate to get investors to buy it—that's the mundane fiscal story. And then fourth is the more extreme fiscal story—with higher debt and much higher rates than before, the fiscal sustainability outlook has deteriorated, and it's possible that investors want a premium for the tail risk of a future fiscal dominance scenario. I don't think you need that fourth story to explain the rise in the term premium since last cycle and I don't actually know if it has contributed meaningfully or not, but the theme does come up more and more in markets these days.

As for quantifying what any one, let alone all four, of these considerations ought to be worth for the term premium, that is a very tough question, one I will gladly leave to our interest rate strategists! So, on the first two contributors to higher long-term interest rates the market is a bit high and on this third one I'm agnostic, if that's allowed. Add those three pieces up and long-term rates look a bit too high to me.

Allison Nathan: Will Trump's fiscal policies worsen an already challenging US fiscal sustainability problem? Is that part of why the term premium has continued to rise recently?

David Mericle: Measures of the term premium have risen noticeably in the last few months, so that could be part of the story of the post-election rise in long-term interest rates.

We don't expect the primary deficit to change much under the new administration. We do expect Republicans to extend the expiring 2017 tax cuts and to introduce some small additional tax cuts, but that would leave the primary deficit in roughly the same place. Concern about fiscal sustainability and Republicans' thin majority in the House are the two reasons we don't expect further fiscal expansion.

That said, not taking action still means that the problem will continue to worsen—the debt-to-GDP ratio will rise, interest expense will rise, and the problem compounds itself. So, I don't expect a provocative new budget to suddenly generate a crisis, like what we saw in the UK, but I could still imagine concerns about long-term fiscal sustainability bubbling up in markets and pushing the term premium higher at some point. I don't think there's any way to know exactly when that might happen, but the subject does come up these days in client conversations more than at any point I remember, so it's an ever-present risk.

Interview with Gregory Peters

Gregory Peters is Co-Chief Investment Officer of PGIM Fixed Income. Below, he argues that persistently higher inflation and concerns about the fiscal trajectory in the US and beyond are likely to keep bond yields closer to the top end of their recent range.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Allison Nathan: While US Treasury yields have been volatile, they remain well above where they were at the start of the Fed's cutting cycle last September. Why is that?

Gregory Peters: Fed officials are confounded by the fact that interest rates have generally moved higher despite Fed rate cuts, which is undoubtedly anomalous relative to history. But a genuine re-rating has occurred in the bond market, with a rise in real yields, inflation breakevens, and term premia all contributing to the rise in nominal yields across the curve. A primary driver of this re-rating has been market expectations that policies under the new Trump Administration will likely boost growth but also inflation, with tariff and immigration policy particularly in focus regarding the latter.

Allison Nathan: Are concerns about higher inflation justified?

Gregory Peters: Only time will tell if policy shifts under the new administration will prove inflationary. And even if they do, the Fed will likely look through policy-driven one-time shifts in the price level. Remember that during the first round of tariff increases in the 2018/19 trade war, the Fed was actually more worried about growth than inflation and cut interest rates. That said, historically, once prices start to rise, they tend to continue rising as companies continue to pass on higher costs. And potential policy shifts would just accelerate what I see as persistently inflationary dynamics all around us.

Everywhere I look, I see more—not less—inflation. The labor market remaining resilient is inflationary. The housing market proving less responsive to higher rates than many thought is inflationary. Companies onshoring to better control and secure their supply chains is inflationary. And climate events are inflationary, with the California wildfires and the substantial draw on resources and labor required to rebuild there an extreme example of this. This environment marks a dramatic change from the pre-pandemic period, when inflation was persistently below target. I expect inflation to remain persistently above target going forward, not dramatically so, but it is the persistence that matters. Inflation has reset at a higher level, and that's a genie that's hard to put back in the bottle.

“ Everywhere I look, I see more—not less—inflation... Inflation has reset at a higher level, and that's a genie that's hard to put back in the bottle."

Allison Nathan: Even with inflation breakevens having risen a bit, the market is not currently pricing in much inflation risk premium. What do you make of that?

Gregory Peters: Subdued inflation risk pricing suggests that the Fed has maintained its inflation-fighting credibility and has not lost control over the inflation situation, which is an important narrative. Should inflation breakevens move sustainably higher, that would suggest not only that inflation is slated to be higher, but also that the Fed has lost its ability to control it, which would be a death knell for markets. So, breakevens are important to watch.

Allison Nathan: How big a role are concerns about the US fiscal trajectory playing in the bond yield re-rating, and are those concerns justified?

Gregory Peters: Concerns about high post-pandemic government debt and deficits are and will continue to be a defining story for the US and globally in 2025 and beyond. These concerns first manifested in UK markets with the 2022 "Liz Truss moment", but remain a focus in the UK, France, and certainly the US. Even the more conservative fiscal scenarios under the new administration suggest a debt-ridden government balance sheet, and less conservative fiscal scenarios could push US debt-to-GDP as high as an eye-popping 160% in 10 years' time.

I am most concerned about the debt service dynamics. In 10 years, we estimate that around a quarter of current government revenue would go directly to interest payments, all else equal. That would be a classic debt trap, which would be a very deep hole to dig out of. So, markets are right to worry about the sheer amount of sovereign debt hitting the global bond market. And these worries are very likely to continue putting upward pressure on the term premium and bond yields as investors demand higher yields to absorb this supply.

Allison Nathan: So, has the neutral rate also shifted higher?

Gregory Peters: Fed officials themselves have asked me whether current Fed policy is restrictive because their neutral rate estimates and today's inflation backdrop suggest that it is, but financial conditions and other measures suggest otherwise. Given this uncertainty, I expect the Fed to continue cutting rates to the top bound of neutral—which is currently around 4%—and then reassess whether current estimates of the neutral rate are actually neutral. For my part, I think the neutral rate is in the 2.5-4% range, with somewhere around 3.25-3.5% as the modal point if I had to put a fine point on it, which is somewhat higher than many considered it to be last cycle.

Allison Nathan: So, where do you expect the 10-year US Treasury yield to go from here?

Gregory Peters: I expect the 10-year to continue to traverse a wide range between roughly 3.5% on the low end and up to 5% on the high end given an environment driven by policy uncertainty and the Fed's reaction function to that uncertainty. A key difference today from most of the previous 15 years is a lack of forward guidance from the Fed as officials navigate this uncertainty, which fuels volatility. So, bond yield volatility will likely remain a key feature of the market for some time.

> "Bond yield volatility will likely remain a key feature of the market for some time."

Allison Nathan: In recent weeks, the market began pricing a higher probability of a 5%+ rate environment. Was that move overdone?

Gregory Peters: It was likely a little overdone on the margin, with market positioning pushing it in that direction. Markets continue to swing too much on the tails, as reflected in the SOFR option market. Last September, the market was pricing a roughly 60% probability of a fed funds rate below 2.5% at the end of 2025 but swung sharply to an expectation of above 4% by year-end as the likelier outcome in recent months and is now pricing around a 25% probability of a rate hike this year. While it not our base case, it could happen, and if it does, I doubt it would be limited to just one hike; historically, once the Fed hikes, more hikes follow. But, while risks to bond yields seem skewed to the upside right now, 5%+ yields don't seem sustainable to me given the current backdrop.

Allison Nathan: What would make you more worried?

Gregory Peters: We learned in 2021 and 2022 that inflation is a portfolio killer. Investors have been conditioned to put on rate hedges when the world falls apart, so that they make money on the front-end as rates are cut and duration rallies. That opportunity doesn't exist when inflation is going the other way. So, my biggest worry is exactly that scenario in which the Fed has to react to a much more hurtful inflation environment than what is currently priced in, which is hard scenario to protect overall portfolios against.

Allison Nathan: If rates do rise to the 5%+ range, what areas of the market would be most vulnerable?

Gregory Peters: Credit investors have seemed somewhat befuddled by the lack of company defaults and distress as bond yields have re-rated higher. But that just owes to the strength of the underlying macro environment and fundamentals; credit spreads are tight because the macro and corporate backdrop is generally healthy. That said, in a persistently higher-than-expected rate environment driven by unanticipated inflation, I'd worry about the most levered parts of the credit market, such as the leveraged loan market as well as the private credit market, where opacity is also a concern. Credit markets have experienced a bifurcation in recent years, with the US high-yield bond market in the best shape it's been in in a very long time, if not ever, as risk has been transferred to those two markets. So, that's where signs of distress for the companies built on the back of zero interest rates would rear their ugly head. But, without a recession, this natural winnowing out process of the most vulnerable companies—a necessary process, in my view—would take time.

Allison Nathan: How do your views and the risks around them translate into investment strategies?

Gregory Peters: My view of the role of fixed income in a portfolio has reverted to its more traditional role, which wasn't the case post the Global Financial Crisis. Bonds play a useful role in a portfolio today given their carry, which is the best it's been in a decade. That said, on the credit side, I don't feel compelled to go out the risk curve because the risk/reward is skewed against investors. The quite snug credit spreads I mentioned make sense in the current macro environment, but that doesn't make them a good investment. So, we've substantially pulled back our credit risk and are running much lighter on the credit side than we have in a very long time. The credit exposure we do have is centered on the short-end of the curve to capture the carry as well as on some structured products, where we see some value and whose protective characteristics are attractive.

On the duration side, we're also positioned close to home. The carry is no doubt attractive. And, for portfolios with a substantial amount of risky assets, the downside protection US Treasuries offer makes a lot of sense. In that regard, I'd want to own bonds versus cash because cash returns are ephemeral and decline when investors need them the most —i.e. if the macro environment weakens, and the Fed cuts rates, cash returns will decline. But the extreme bond yield volatility that we've been discussing introduces too much volatility to own more duration in our portfolios. There will likely come a point, though, where sovereign bonds will be a much bigger driver of our portfolios as credit will continue to look less and less attractive as spreads rest very close to all-time historical tights. To that end, I am focused on the potential for a crowding-out effect. I haven't seen such an effect yet. But, given all the sovereign supply set to hit the market, a crowding out of corporate credit and other assets seems likely at some point.

> "For the first time in a long time, I see more value in sovereign bonds outside the US than in the US, which represents a big opportunity in global bond markets."

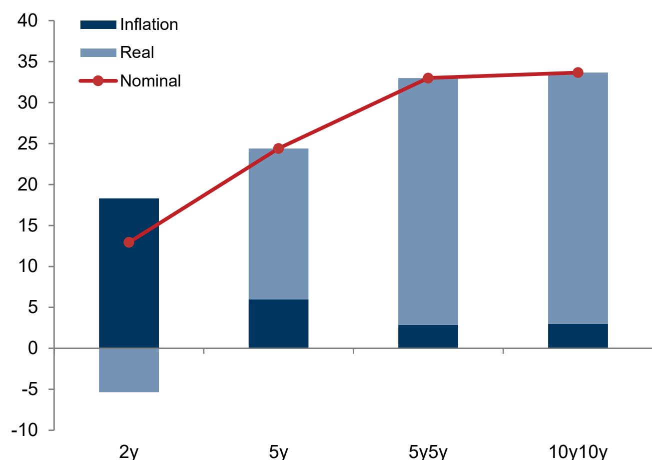
Allison Nathan: How do you view opportunities in US Treasuries versus ex-US sovereign bonds today?

Gregory Peters: Up until recently, global rate moves were a US Treasury-dominated "market of one" world. Central banks were all moving in unison, driven by similar inflation trends. That's no longer the case; sovereign bond correlations are much weaker, which provides compelling investment opportunities. For example, more scope for the ECB to cut rates than the Fed given Europe's weaker macro picture as well as the recent sharp moves in the Gilt curve have caught my attention. So, for the first time in a long time, I see more value in sovereign bonds outside the US than in the US, which represents a big opportunity in global bond markets.

A snapshot of the US rates reset

US Treasury yields have risen sharply since late last year, with the moves concentrated in the back-end

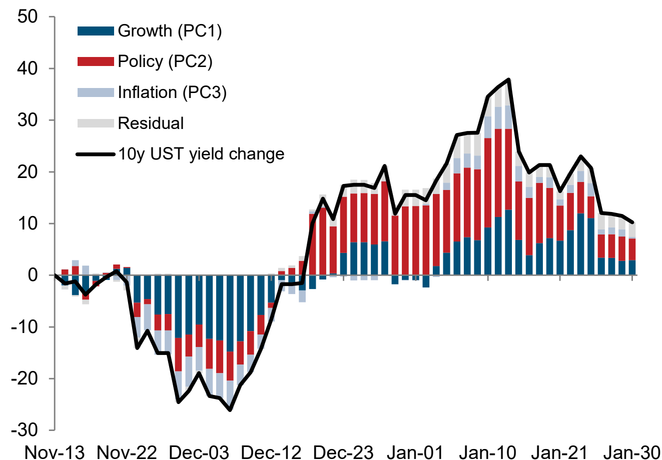
Change in USD rates since the election, bp



Source: Goldman Sachs GIR.

Shifting growth and policy expectations have been key drivers of the move in long-end yields...

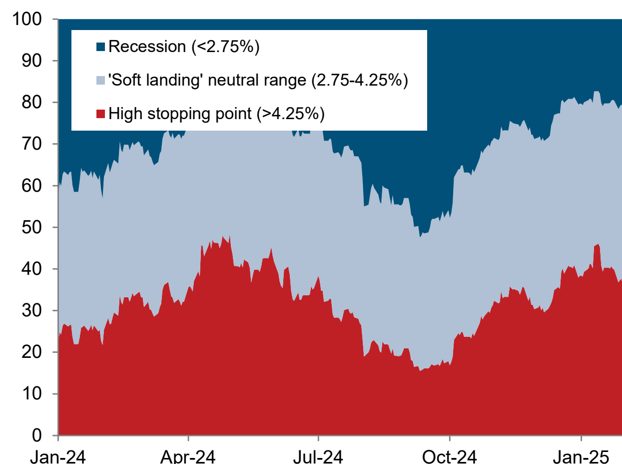
10y US Treasury yield change by macro factor, bp



Source: Bloomberg, Goldman Sachs GIR.

...as the market has attached increased weight to a scenario where the fed funds rate remains high

Option-implied probability of funds rate outcomes two years forward, %



Source: Goldman Sachs GIR.

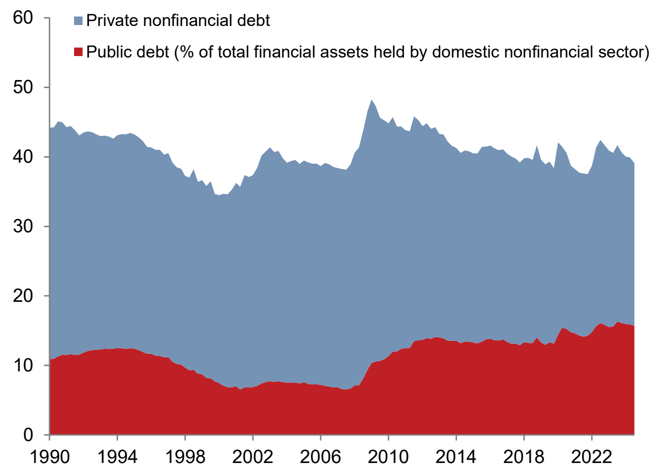
The term premium—an important component of long-end yields—has reset significantly higher...

10y term premium, GS model estimate, %

Source: Bloomberg, Goldman Sachs GIR.

...partly owing to growing fiscal sustainability concerns as US public debt levels have continued to rise...

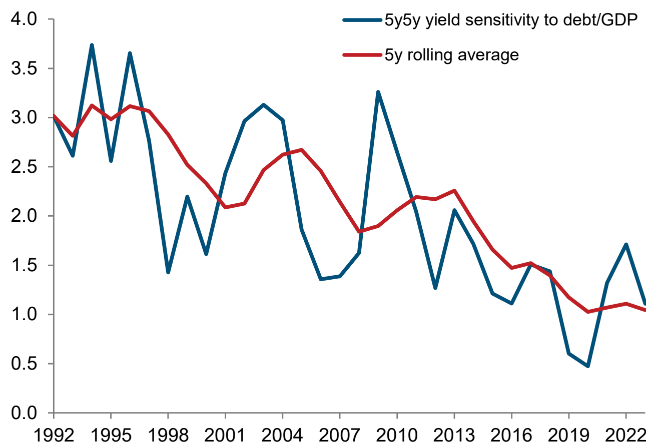
Debt as a share of domestic financial assets



Source: Goldman Sachs GIR.

...though longer-term yields have become less sensitive to shifts in the debt burden over time, likely owing in part to a rise in private sector savings

Sensitivity coefficients, bp



Source: Goldman Sachs GIR.

Special thanks to GS Rates Strategy team for all charts.

Term premia: not just a supply story

William Marshall argues that fiscal pressures on Treasury term premia face near-term offsets from other drivers of term premia, which see 10y US Treasury yields finish the year around current levels

With the recent volatility in US bond markets partly owing to a reevaluation of the term premium (see pgs. 4-5), how the term premium evolves from here will be an important determinant of where Treasury yields settle. Discussions of Treasury term premia often focus on fiscal risks and the accumulation of duration supply. While government debt levels and fiscal sustainability considerations warrant particular attention in today's high debt environment, a wide range of factors beyond fiscal pressures influence term premia. Shifts in these drivers have been generally consistent with an upward reset in term premia from pre-pandemic norms. Over the next year, however, some of these drivers could counteract the supply impact on term premia and, in turn, longer-term yields, consistent with our forecast that 10y US Treasury yields finish the year at 4.35%.

Increased Treasury supply is a large part of the story...

Term premia reflect the compensation investors require for taking duration risk in excess of the expected return of rolling over short-term debt. Although not directly observable, a range of estimation techniques that attempt to decompose yields into their two component parts—expectations of the future path of policy and term premium—universally suggest that Treasury term premia has risen meaningfully since 2019.

Persistently large government deficits have driven considerable growth in the size of the Treasury market over this period. Treasury free float—the total amount of Treasuries outstanding minus those that sit on the Fed's balance sheet—has grown from $14.4tn (65% of GDP) in 2019 to $24tn (80% of GDP) at the end of 2024. In addition to persistent deficits, the forward-looking debt-to-GDP trajectory has steepened substantially and is highly sensitive to borrowing costs relative to growth. For a given level of safe asset demand, more Treasury supply should result in higher yields to incentivize absorption, boosting term premia. Additionally, we have found that bond supply shifts tend to matter more in the context of a higher expected path for short-term rates relative to trend growth, as is the case today.

...but not the whole story

While higher debt levels and the resulting increase in Treasury supply have played an important role in the upward reset in term premia over the last several years, other factors have been at work as well.

Economic shocks can drive shifts in term premia, though the impact ultimately depends on the underlying drivers of the shock. When shocks are predominantly demand-driven, inflation and growth tend to move in the same direction. This co-movement strengthens the hedge value of bonds in times of negative demand shocks, thereby depressing term premia.

When supply shocks occur, the less positive (or potentially negative) correlation between growth and inflation erodes this value proposition, putting upward pressure on term premia. The supply-side disruptions, high inflation, and forceful Fed tightening of the pandemic period meaningfully reduced the case for owning Treasuries to hedge risky assets, an important part of why term premia has risen significantly over the last several years.

Uncertainty around the growth, inflation, or policy outlook can also impact term premia, as investors will likely require more compensation for lending money when risks are elevated. Following the relatively low volatility environment of the late 2010s, significant uncertainty around the business cycle supported meaningfully higher rate volatility over the last few years, another key component of the higher term premia story.

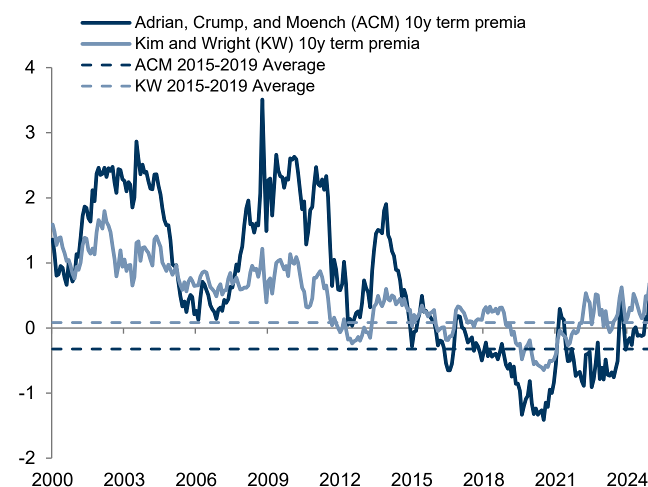
Taken together, these factors have contributed to the upward reset in term premia from pre-pandemic norms. And while the robust appreciation in asset valuations over the last several years and healthy private sector balance sheets have tempered some of this upward pressure by supporting safe asset demand and limiting crowding-out effects, the net effect remains higher term premia.

Some moderation likely ahead

The US fiscal outlook likely limits the scope for yields to move significantly lower, supporting a higher neutral rate and upward pressure on term premia over time. Tariffs may be a near-term complication, but evidence that underlying pressures are converging toward target-consistent inflation levels—which the market doubts but we expect—should offset some of that impact. That should, in turn, reduce the risk of a restrictive policy stance over the medium-term, dampening uncertainty, and instilling greater confidence in the hedge value of bonds. Altogether, these developments should support our baseline view that 10y Treasury yields can end the year around or modestly below current levels.

Different term premia estimates are aligned in showing an upward reset vs. pre-pandemic norms

ACM and Kim and Wright 10y Treasury term premia estimates, %



Source: Federal Reserve, New York Fed, Bloomberg, compiled by GS GIR.

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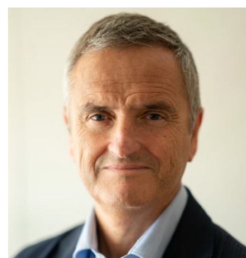
Interview with Ricardo Caballero

Ricardo Caballero is the Ford International Professor of Economics at MIT and the former Chairman of MIT's Economics Department. Below, he argues that the neutral interest rate in the future could prove lower than many think as the equity risk premium rebuilds and governments worldwide embark on fiscal consolidation.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.



Jenny Grimberg: How useful is the concept of the neutral interest rate in guiding and assessing the stance of monetary policy?

Ricardo Caballero: The concept of the neutral rate—or r*—is much less useful as a guidepost for Fed policy than widely assumed, because the connection between aggregate demand—a crucial indicator of the economy's health—and the policy rate is unstable. That's because many financial variables beyond interest rates impact aggregate demand, including stock prices and exchange rates. And financial conditions, as measured by a Financial Conditions Index (FCI) that captures these variables in addition to interest rates, often don't behave consistently with interest rates. Case in point: after the Global Financial Crisis (GFC), financial conditions were tight despite persistently low interest rates, while financial conditions in the current cycle have generally remained loose even as interest rates have risen sharply. The more stable relationship between aggregate demand and FCI has led myself, along with Tomás Caravello and Alp Simsek, to argue for shifting from an r*-centric to FCI*-centric framework to guide monetary policymaking.

Jenny Grimberg: What has accounted for the wedge between r* and FCI*?

Ricardo Caballero: The main driver of the wedge between r* and FCI* is the risk premium—the risky interest rate minus the risk-free, or safe, rate—and, in particular, the equity risk premium (ERP). The ERP has fluctuated wildly over the last two decades, rising following the Dot Com bubble and the GFC owing to heightened risk awareness and regulatory changes. I, Emmanuel Farhi, and Pierre-Olivier Gourinchas have found that the return on risky capital remained relatively stable over this period, so this rise in the ERP meant that the equilibrium safe interest rate—which is essentially the neutral rate, because, over the long run, bond markets anchor to estimates of neutral—declined. That dynamic has reversed over the last few years, with the risk premium falling from around 400bp pre-pandemic to 50bp today. As a result, the equilibrium interest rate has moved sharply higher.

Jenny Grimberg: Many market watchers seem to expect the equilibrium interest rate to remain high. Do you agree?

Ricardo Caballero: I'm skeptical. Two mechanisms will likely exert significant downward pressure on the equilibrium rate over time. The first is a rebuilding of the ERP. The recent risk premium compression feels like a temporary phenomenon that will at least partially reverse, for two reasons. One, retail investors became much more active in the post-pandemic period, and the momentum trade has performed exceptionally well. But most momentum trades eventually crash, which should reset expectations and increase risk awareness. Two, inflation has been front and center in investors' minds, displacing recession fears. As a result, large-cap equities have acted as a "safe asset", diverting investor demand away from bonds and compressing the ERP in the process. But this shift will likely reverse as inflation risks fade the closer inflation comes to target and recession risks inevitably rise.

The second mechanism is a global phenomenon known as "indebted demand". As debt accumulates, new demand becomes heavier. In the near future, high levels of public debt will reduce public demand, much like what occurred in the private sector after the GFC. This trend is now evident in governments globally. In response to the pandemic, governments ran massive deficits, driving debt to historical highs. These high debt levels have triggered deficit reduction initiatives across many advanced and emerging economies, which will put downward pressure on aggregate demand. To compensate, demand will need to shift to the private sector. And the way to induce more private sector demand is to lower equilibrium interest rates. Now, the US is a notable outlier because it has yet to embark on the fiscal retrenchment process, which will slow the global downward pressure on interest rates. But it is almost certainly a question of when, not if, the US pursues fiscal adjustment.

Taken together, these mechanisms will substantially weigh on the neutral rate. To put some numbers around this, I suspect FCI is currently near FCI* at an effective federal funds rate of 4.38%. If the ERP rebuilds to even half its pre-pandemic level, that would equate to a 150bp reduction in the current funds rate, lowering the neutral rate to around 2.88%. Assuming fiscal deficits fall by an average of 2% of GDP globally, that would lower equilibrium rates by another 40bp under conservative estimates of the impact of deficits on interest rates, leaving the neutral rate at 2.48%. So, I estimate a future short-run neutral rate of roughly 2.5%, though at what point in the future is difficult to say because whether the mechanisms we've discussed will exert their full impact in this cycle or over the course of several cycles is an open question.

Jenny Grimberg: It's often argued that higher government debts put *upward* pressure on interest rates because the private investors who will increasingly have to absorb those debts will demand a higher interest rate to do so. Why don't you believe that will be the case?

Ricardo Caballero: While investors can substitute out of, for example, Argentinian debt if the interest rate on the debt is too low, very few—if any—substitutes exist for US government debt in sufficient size. So, creditors have limited power to demand that the US government pay more to borrow. And as the saying goes, a small loan is the borrower's problem, a large loan is the lender's problem. In the case of sovereign debt, the

problem lies not with the lender but with aggregate demand—governments' enormous debt loads will lead to insufficient aggregate demand, so, in equilibrium, interest rates must fall to incentivize the private sector to cover the demand shortfall. Now, the term premium—the compensation investors require for holding long-term bonds rather than a series of shorter-term bonds—may have to rise significantly to incentivize investors to own long-term bonds. But a sharp rise in the term premium would tighten financial conditions, which would argue for even lower front-end interest rates.

Jenny Grimberg: Doesn't US economic growth running above potential even at a 4%+ Fed funds rate imply a structurally higher neutral rate?

Ricardo Caballero: The resilience of aggregate demand to higher interest rates is not a function of the US economy potentially being able to tolerate higher rates, but rather of loose financial conditions. With the notable exception of 2022 when the Fed embarked on an aggressive hiking cycle that rattled equity markets, the economy has not experienced a prolonged period of tight financial conditions to really test its resiliency. The strength of the US economy as a whole also masks an underlying imbalance that could become problematic, a phenomenon that I like to describe as "Financial Dutch Disease". The Mag 7 tech companies and broader AI complex have fueled enormous wealth creation, forcing the Fed to keep rates higher for longer to counteract this wealth effect. This policy stance has disproportionately weighed on small-cap stocks and rate-sensitive sectors, resulting in an imbalance akin to what the Dutch economy suffered in the 1970s when the Florin's appreciation on the back of oil discoveries undermined the country's manufacturing export sector. These imbalances will eventually act as a drag on the US economy, necessitating lower rates to restore economic equilibrium.

Jenny Grimberg: Some market watchers argue that higher productivity growth on the back of widespread AI adoption could lead to a structurally higher neutral rate in the coming years/decades. How does that square with your belief that the neutral rate could prove low?

Ricardo Caballero: The AI boom matters much more for the short-term neutral rate than for the medium-term neutral rate. In the short term, the AI boom has undoubtedly been a major driver of higher interest rates. AI-driven optimism has lifted equity valuations significantly, creating a wealth effect that has boosted aggregate demand while AI's impact on productivity and potential output will take longer to materialize. The result is excess demand, which puts upward pressure on inflation and interest rates. Over the longer term, the technology's impact on interest rates will depend significantly on its effect on potential output. Even assuming that AI permanently raises total factor productivity growth by 50bp annually—a wildly optimistic assumption—the resulting boost to the neutral rate would be at most 50bp, and likely much smaller. The combined impacts from the likely rebuilding of the ERP and global fiscal retrenchment would likely dwarf that.

Jenny Grimberg: It's also been argued that the moderation of the global savings glut that characterized much of the last two decades could put upward pressure on the neutral rate. What's your view?

Ricardo Caballero: The savings glut story is fundamentally about flows: too much saving chasing too few investment opportunities, depressing equilibrium interest rates. I prefer to frame it in terms of stocks: too few assets relative to the large and growing demand for stores of value. I have long argued that the global economy recurrently creates bubbles to address this persistent asset shortage. The specific assets that fulfill the "store of value" role have varied over time, but in the aftermath of the late 1990s EM crisis, Dot Com bust, and GFC, the most in-demand and scarcest of all assets were the traditional safe assets—prime sovereign bonds, particularly US Treasuries. The scarcity of these safe assets drove the secular decline in safe interest rates we've discussed and ultimately brought the global economy to the brink of what I and Farhi have termed a "safety trap"—a liquidity trap driven by a shortage of safe assets.

That dynamic has shifted in recent years as prime sovereign debt has become abundant and, until recently, carried inflation risk. In this environment, mega-cap tech and AI stocks have emerged as the new scarce "safe assets", which is an important part of the ERP compression story of the last few years. But the underlying issue remains: enormous global demand exists for stores of value, yet asset creation continues to chronically lag behind. And as investors continue to rotate between asset types in search of stores of value and those who have amassed wealth from the AI boom eventually seek to reallocate that wealth into safer investments, portfolios will likely gradually rotate back toward safe sovereign bonds, exerting downward pressure on equilibrium safe interest rates.

Jenny Grimberg: Policymakers and investors have been reevaluating their estimates of the neutral rate higher. So, has this reevaluation been misguided, and what would it take to spur a rethink?

Ricardo Caballero: Misguided is a strong word, but I believe the mechanisms we've discussed—ERP rebuilding and indebted public demand—have not been sufficiently considered in the prevailing neutral rate arguments and models. Beyond just giving them more consideration, a rethink would require accumulating evidence that the US economy is slowing down and cannot sustain interest rates at current levels. Hopefully, this happens gradually, allowing proponents of a structurally higher neutral rate to slowly update their priors, though an equity market crash, intensifying global recessionary forces, or the Financial Dutch Disease unfolding could cause a more aggressive slowdown and trigger a more rapid introspection.

Jenny Grimberg: Given everything we've talked about, where do you expect 10-year rates to settle?

Ricardo Caballero: The term premium is important to consider here. Currently, the term premium is around 50bp; the average level prior to the GFC was closer to 100bp. If the term premium returns to its pre-GFC average, the 10-year rate would be around 3.5%—the 2.5% future short-run neutral rate plus 100bp of term premium—well below the current level of 4.4%. If the term premium were to rise above 100bp, perhaps owing to growing concerns about US debt sustainability, that would exert downward pressure on the front-end, so the term premium spike wouldn't be fully absorbed by the back-end. If such steepening were to persist, it could leave the future neutral rate below even my relatively low 2.5% estimate.

Neutral: from not as low, to not as high

Manuel Abecasis argues that consensus around the level of the neutral rate looked too low last cycle, and now looks too high

The neutral long-term interest rate, or r*, is the rate that would stabilize the economy at full employment and the Fed's inflation target, assuming other influences on the economy are at normal levels. Since the ups and downs of the business cycle should average out over many years, the neutral rate is a useful anchor for long-term interest rates. As such, trying to understand what r* will be is key to the question of where interest rates may settle.

From a too low r* consensus...

Last cycle, a consensus emerged among most investors, policymakers, and academic economists that the neutral rate was—and would remain—very low. That consensus was based on theoretical arguments about changes in the economy that should lower the neutral rate, model-based estimates of neutral, and the decline in market-based proxies for the neutral rate.

But we have long been skeptical of that consensus for several reasons. First, we found that changes in the theoretical drivers of the neutral rate—such as an aging population, lower productivity growth, higher inequality, globalization, and reduced risk appetite, which all impact savings and investment and accordingly influence r*—did not justify as large a decline in r* as the consensus suggested.

Second, many models took the sluggish recovery following the Global Financial Crisis (GFC) as proof that r* had fallen to very low levels. But slow growth is typical in the aftermath of very severe financial crises and did not imply that rates would need to stay low indefinitely. Models eventually revised up their assessment of neutral for the pre-pandemic period and now estimate that the nominal neutral rate was around 3.6% in 2018, closer to what the theoretical drivers of neutral implied it should be. But this reevaluation took several years.

Third, market proxies of the neutral rate are heavily influenced by Fed communication and therefore cannot serve as an independent reflection of the neutral rate. The Fed's influence on markets was so pronounced that all of the decline in long-term interest rates between 1990 and 2019 occurred in windows around Fed meetings.

...to a too high r* consensus

Over the last few years, market proxies for the neutral rate have risen significantly, boosting long-term rates. And as investors digested the combination of strong growth and elevated inflation alongside a high fed funds rate and formed their own opinions about the level of r*, changes in long-term rates became much less anchored to Fed communications.

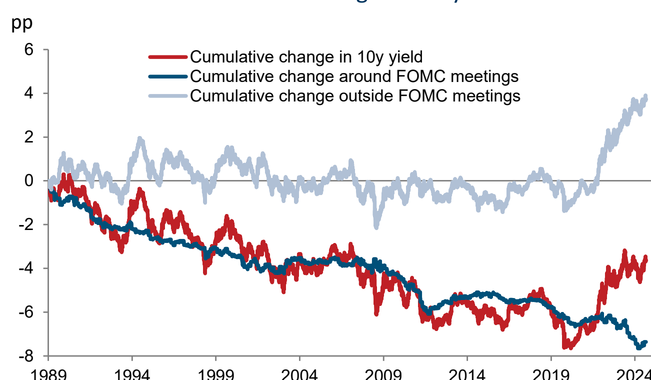
Today, market proxies for the nominal neutral rate are roughly equivalent to the fed funds rate. In contrast, our estimate of the long-run nominal neutral rate is 3-3.5%, above the Fed's 2.5% stopping point last cycle but below current market proxies.

Market proxies for r* are now much higher than pre-pandemic

5-year yield 10 years forward, %

Note: Based on OIS rates from 2004 and Treasury yields adjusted for the average difference between OIS rates and yields from 2004-2007 before then.
Source: Federal Reserve, Goldman Sachs GIR.

The link between long-run interest rates and Fed communications has weakened significantly



Note: Based on Hillenbrand (2021).
Source: Federal Reserve, Goldman Sachs GIR.

Could the market have overshot to the upside this time? We think so, for the same reason it undershot last cycle: investors may be over-extrapolating from temporary forces that affect aggregate demand but don't permanently impact the economy.

We see two major such forces, both of which are currently boosting demand and allowing the economy to withstand higher interest rates. The first is the fiscal deficit, which is currently around 5% of GDP wider than it has been on average when the unemployment rate has been this low. The second is the fact that broad financial conditions have not tightened commensurately with the funds rate, limiting the transmission of tighter monetary policy to the economy. In fact, risk sentiment has been so robust that our Financial Conditions Index (FCI) is around its average 2017-2019 level despite the much higher level of the fed funds rate today.

These tailwinds will probably not last forever—the US fiscal trajectory is unsustainable, and risk sentiment tends to mean-revert over time. When they fade, the Fed will have to offset the associated drag on demand with a lower policy rate to achieve its maximum employment and 2% inflation goals. The upshot is that the fed funds rate will, on average, probably settle below the level currently implied by long-term interest rates in future cycles.

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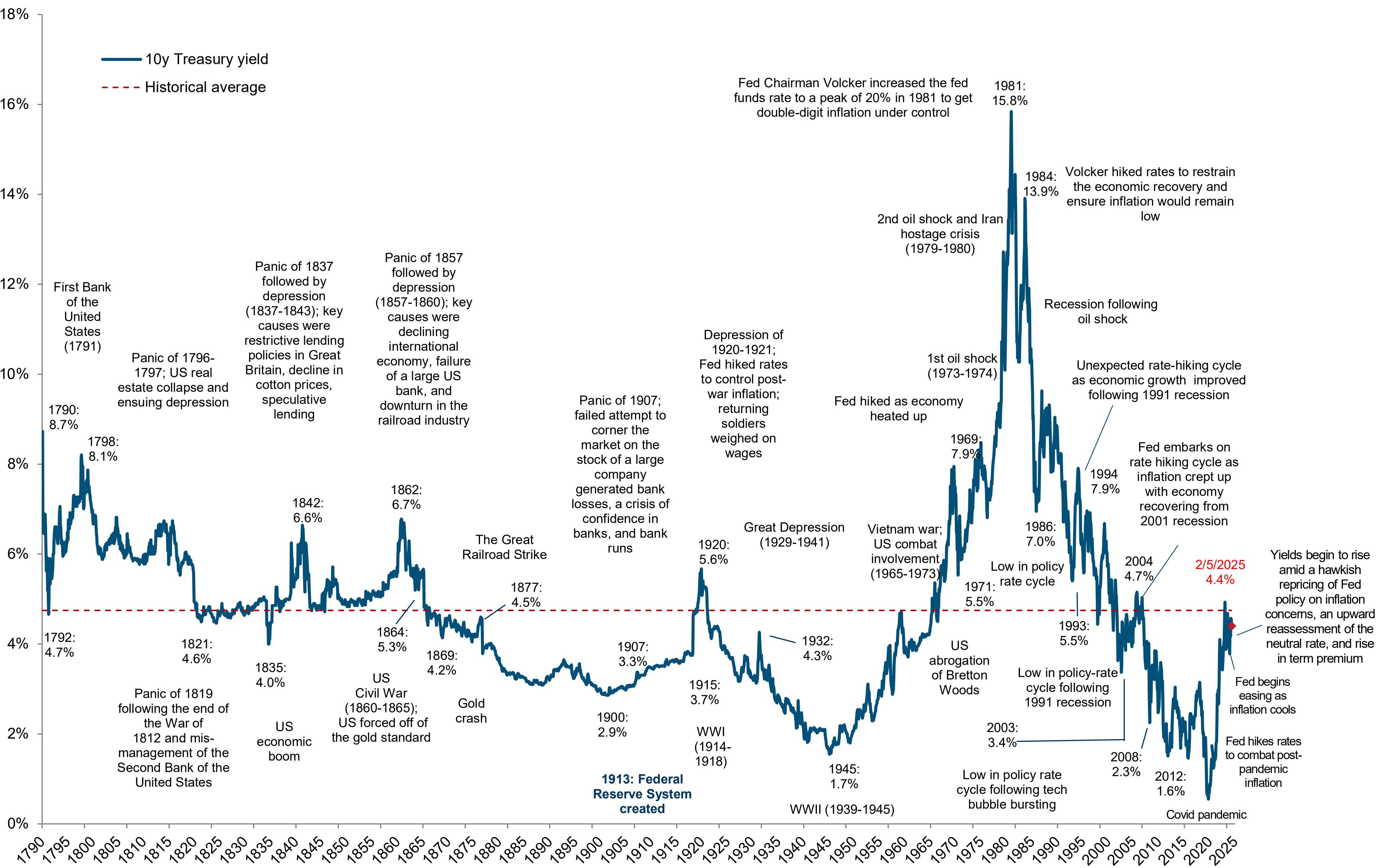
A long history of US rates



Note: Chart shows monthly averages.
Source: Global Financial Data, Inc., Federal Reserve Board, Haver Analytics, Goldman Sachs GIR.

Cyclical relief vs. structural challenges

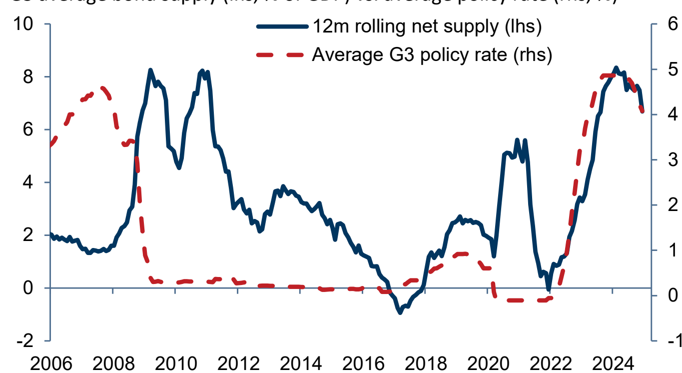
George Cole expects eventual cyclical relief in Europe and the UK to allow Bund and Gilt yields to retrace further

The recent volatility in global bond markets, led by the US, has challenged the assumption that global central banks rate cuts will ease the way for markets to fund governments over the next year. In most G10 economies, the prospect of significant budget consolidation following a sharp pandemic-related rise in deficits remains limited. Combined with central bank quantitative tightening, the amount of bonds supplied to the private sector remains near all-time highs, but at a much higher level of rates.

This increase in the supply of bonds is not new, nor are the structural challenges from high debt burdens, elevated real rates, and persistent deficits. But, despite challenging fiscal arithmetic over the long run, investors were able to suspend disbelief as long as the prospect of central bank rate cuts on the back of subsiding inflation offered cyclical relief. With the outlook for rate cuts now murkier, the recent volatility in global bond yields has reignited structural fiscal concerns. However, we ultimately think such concerns are overdone and expect the pendulum to swing back toward cyclical relief.

Global bond supply remains near all-time highs

G3 average bond supply (lhs, % of GDP) vs. average policy rate (rhs, %)



Source: Goldman Sachs GIR.

A repricing in the US...

Since the Fed initiated its cutting cycle last September, US rate expectations have risen substantially. Strong growth, a resilient labor market, higher inflation, and a repricing of the US economic outlook following the US election have all contributed to higher US rates. This repricing has increased the term premium, as the large amount of bonds supplied to the market becomes harder to digest when, for any given price, the demand for bonds falls due to rising expectations for growth, inflation, and policy rates (see pg. 9).

...has dragged up global yields...

The rise in US rates has dragged up yields in all major markets over the last few months. But not all economies have experienced the same upward revision of their macroeconomic outlook. Inflation expectations have increased in the UK, but growth expectations have fallen. And both have fallen in the Euro area over the last few months. As a result, expectations for ECB and BoE policy paths have not changed as much as those for the Fed. Since the September Fed meeting, expectations for one-year-ahead policy rates have declined by over four 25bp cuts in the US and just over two in the UK, while policy rate pricing has remained largely unchanged in the Euro area.

...and fiscal risk premia...

And yet, the move in long-end yields in European and UK bond markets has been substantial, and in the case of the UK, has essentially matched the US over recent months. The relative stability in policy rate expectations coupled with a long-end selloff suggests an increase in bond risk premia. This, together with the rise in bond yields vs. swap rates, suggests that the market is demanding more fiscal risk premium, particularly in Gilts, consistent with higher borrowing in last year's UK budget.

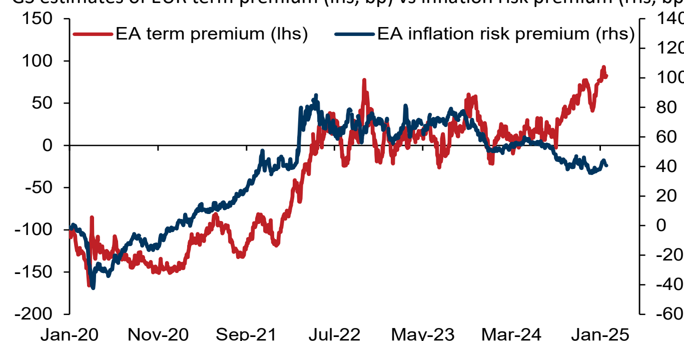
This points to the importance of the outlook for global yields in an environment of elevated bond supply. Spillovers from US bond markets to the rest of the world are nothing new but are particularly impactful for economies with weaker cyclical outlooks and weaker fiscal fundamentals. In this way, the twin deficits in the UK (current account and fiscal) are consistent with the high beta UK rates have had to the US.

...but concerns are overdone

Despite the poor performance of Gilts as of late, we think worries about substantial fiscal and inflationary risk in the UK are overdone. So far, GBP has not weakened significantly vs. USD, consistent with most other G10 currencies. And many economies, including the Euro area, have experienced some combination of higher yields and weaker currencies, even if to a lesser degree than the UK. Risk premium is also rising in Bunds ahead of potential fiscal expansion following the upcoming German election, though we think this will prove modest, if not underwhelming, vs. current market pricing.

Euro area term premium has decoupled from inflation risk

GS estimates of EUR term premium (lhs, bp) vs inflation risk premium (rhs, bp)



Source: Goldman Sachs FICC and Equities, Goldman Sachs GIR.

The pendulum to swing back again

All that said, limits exist to how far fiscal risk pricing can overshoot the growth and inflation outlook. So, we expect the pendulum to swing back again. We expect the path for inflation and growth in the UK and Euro area will be consistent with faster central bank cuts. The path for US and global interest rates will also likely be more benign and so is unlikely to exert meaningful spillovers, which should allow 10y Bund and Gilt yields to reach our forecasts of 1.9% and 4.0%, respectively, by end-2025. But whether the cyclical overtakes the structural remains key to watch.

George Cole, Head of European Rates Strategy

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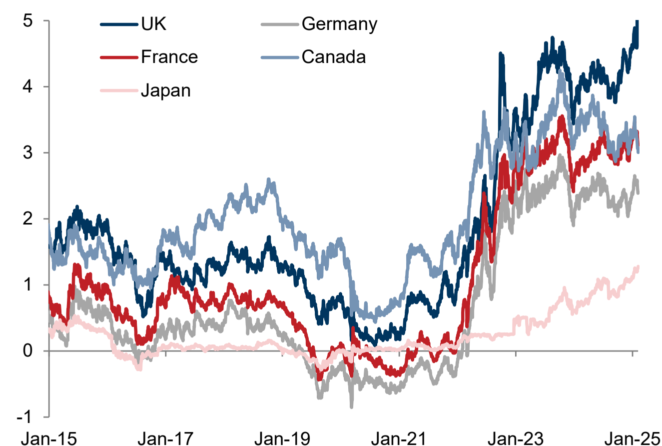
A snapshot of global bond markets

Alongside the rise in US yields, sovereign bond yields have risen across much of the G10…

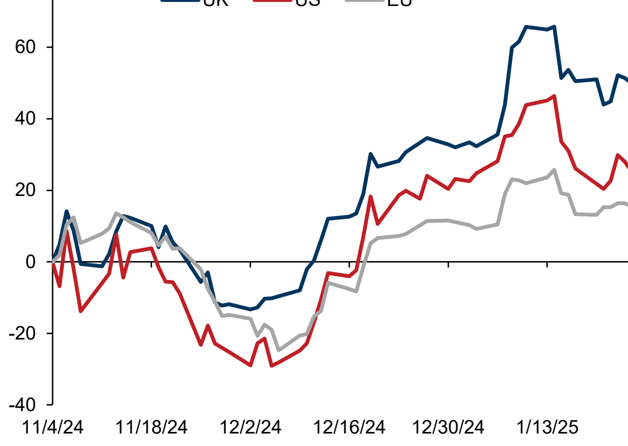
10-year sovereign bond yields, %



Source: Bloomberg, Goldman Sachs GIR.

…largely driven by a reset higher in term premium

Change in GS 10y term premium estimates, bp



Source: Goldman Sachs FICC and Equities, Goldman Sachs GIR.

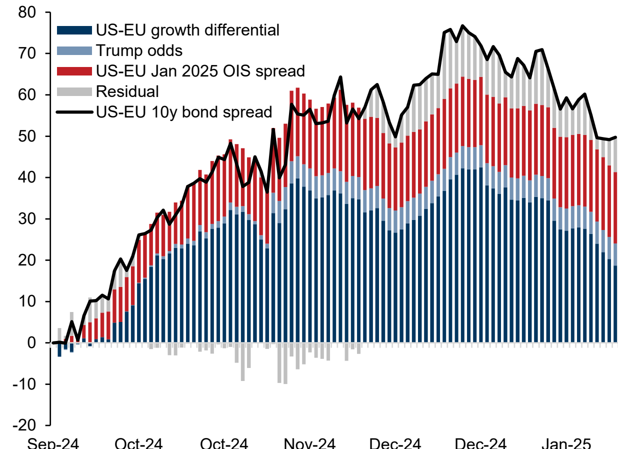
The upward pressure has been most keenly felt by Gilts amid concerns about rising UK deficits

UK deficit expectations (lhs, % of GDP) vs. 2y yields (rhs, %)

Source: Consensus Economics, Goldman Sachs FICC and Equities, GS GIR.

US-Bund spreads have overshot growth and policy fundamentals, suggesting the rate selloff reflects spillovers from US yields

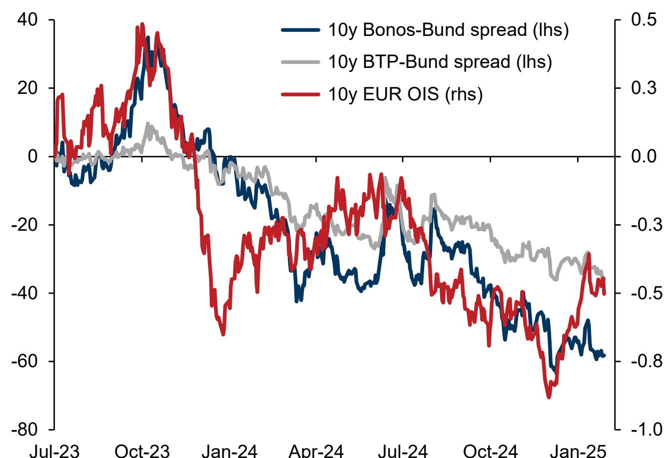
10y UST-Bund PCA decomposition, bp



Source: Bloomberg, Goldman Sachs FICC and Equities, Goldman Sachs GIR.

However, the pickup in core rates has not translated into sovereign spread widening, unlike in past instances of bearish impulses from the US

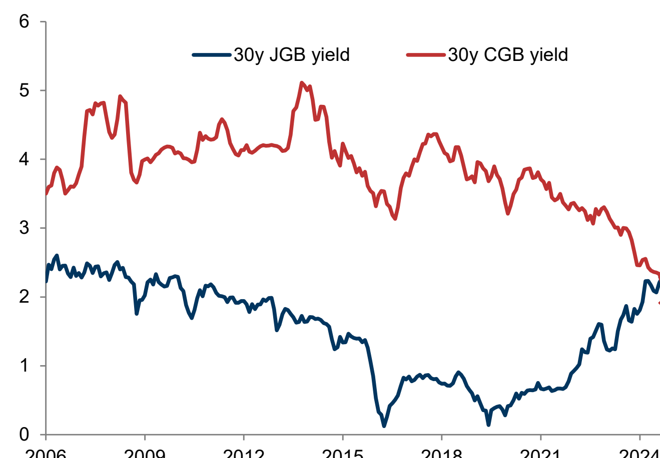
10y EA sovereign spreads (lhs, bp) vs. 10y EUR OIS (rhs, %)



Source: Goldman Sachs FICC and Equities, Goldman Sachs GIR.

Meanwhile, Chinese government bond yields have *fallen*, and are now lower than Japanese government bond yields for the first time in over two decades

30y JGB and CGB yields, %



Source: Haver Analytics, Goldman Sachs GIR.

Special thanks to GS Rates Strategy team for charts.

Rising yields and Fed cuts: a precedent

Vickie Chang argues that, while unusual in the context of a monetary easing cycle, the recent rise in yields is not unprecedented

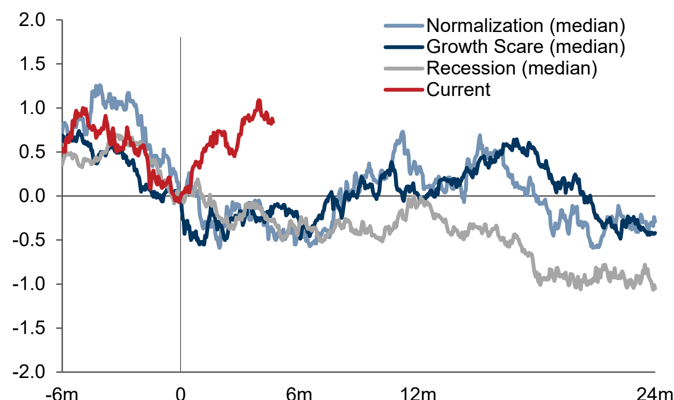
While now off its peak, the 10-year US Treasury yield has risen by more than 100bp in recent months even as the Fed has lowered the funds rate by 100bp since the start of its rate cutting cycle last September. How unusual is this move? While we find that the speed and size of the bond selloff is unusual in the context of historical Fed cutting cycles, it is not unprecedented, and the rise in yields makes sense in the context of the current macro environment. But the market outcome from here hinges on the inflation trajectory.

A historical precedent

Median asset performance around the first Fed cut during easing cycles in the past 40 years[1] suggests that the rally in US equities since September is in line with the historical experience in non-recessionary cutting cycles, but the rise in 10-year yields looks unusual. However, it is not unprecedented—yields rose by comparable amounts in the 1981[2], 1995, and 1998 easing cycles.

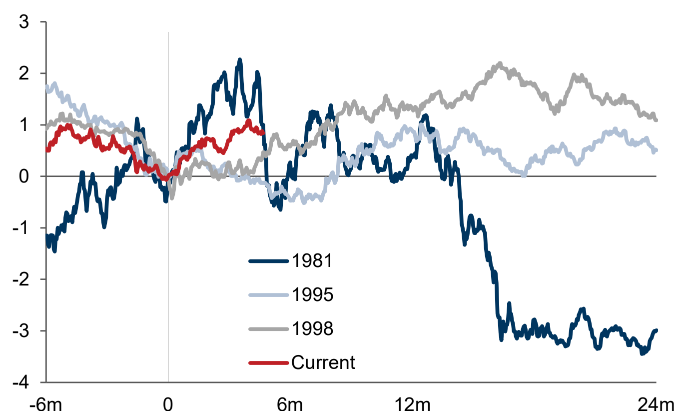
Rising yields look unusual in the context of historical non-recessionary Fed cutting cycles...

Change in 10y US Treasury yield, index, day of first Fed cut=0



...although they are not unprecedented

Change in 10y US Treasury yield, index, day of first cut=0



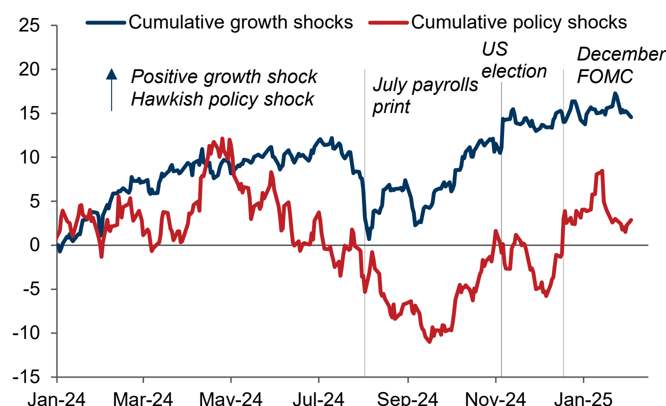
Source: Goldman Sachs GIR.

Shifting growth and policy expectations

History is a useful but limited guide, and what matters most for understanding asset market shifts is to understand their macro drivers. Our macro framework[3] suggests that over the last few months, the market has priced a sharp growth upgrade, accompanied in more recent weeks by a hawkish policy shock that has now somewhat reversed. Heading into the first cut, a meaningful rise in the unemployment rate sparked recession fears and markets priced a meaningful growth downgrade. Several months on, the labor market has held firm and the Fed appears to have eased into a resilient economy. The market upgraded its growth outlook further—and intensified its doubts about the appropriateness of further easing—in the wake of the US election outcome. In that context, the fundamental macro shifts that the market has priced seem broadly sensible.

A growth upgrade, and then a hawkish policy shock

Cumulative growth and policy shocks, index



Source: Goldman Sachs GIR.

Two potential outcomes...

Growth and policy pricing during the three historical episodes in which yield moves resembled the current cycle suggests two potential outcomes ahead. The first is the possibility that, as in 1995 and 1998, the Fed has eased into a non-recessionary economy, and so growth pricing will hold up or even improve. The second is the possibility that, as in the early 1980s, the Fed eases but discovers that the inflation problem has not abated and re-tightens policy, resulting in a large hawkish policy shock that eventually translates into a negative growth shock as the economy slows further.

...and we favor the more supportive one

The first is a supportive story for risk assets, while the second is not. Our forecasts are more consistent with the first story. While markets understandably remain focused on the risks of sticky inflation, those risks look much milder than in the early 1980s, and we believe that an inflation resurgence is unlikely, absent broad-based tariffs. Over the medium term, this should remain a supportive backdrop for risky assets.

Vickie Chang, Senior Global Markets Strategist

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Tel: 212-902-6915

[1] The initial ten cycles we focused on began in 1984, 1987, 1989, 1990, 1995, 1998, 2001, 2007, 2019, and 2020. We classify each cutting cycle as either associated with recession, or as non-recessionary episodes motivated by a "growth scare" or a "normalization" of monetary policy.
[2] We excluded the 1981 cycle from our original analysis as this was before the Fed conducted monetary policy by targeting the funds rate.
[3] Our macro framework uses the co-movement of US equities and bonds to assess how the market is shifting its views on US growth and policy.

Q&A: risky asset impacts of higher rates

Equity

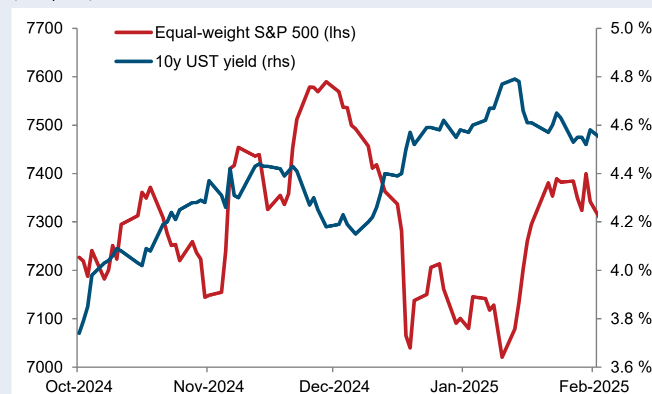
David Kostin and team

Q: How vulnerable are equities to a renewed rise in US Treasury yields?

A: The equity market's response to a shift in interest rates depends on the speed and drivers of the rates move. Over the past 20 years, stocks have generally performed well alongside gradual increases in rates. However, equities sold off by an average of 4% when real bond yields rose by two standard deviations or more in a month. In today's terms, a two standard deviation monthly move would equate to a roughly 60bp increase in yields, similar to the magnitude of the rise in rates between early December and mid-January. Equities have typically appreciated alongside rising bond yields when an improvement in economic growth expectations drove the yield moves. However, equity returns were typically weaker than average when hawkish Fed policy or other drivers unrelated to the growth outlook pushed yields higher.

Equities struggled amid the recent bond selloff, and rebounded as this move reversed

Equal-weight S&P 500 (lhs, index), 10y US Treasury yield (rhs, %)



Source. Goldman Sachs GIR.

Our top-down earnings model suggests that modest changes in yields should have a roughly neutral net impact on earnings. Our macro model of valuation suggests that a 50bp move in real 10-year Treasury yields would shift the S&P 500 fair-value P/E by 3%, all else equal. So, a gradual rise in Treasury yields owing to improving growth expectations would likely lead equities to rise as earnings growth would likely outweigh a modest decline in valuations. However, a sharp increase in yields, or one driven by policy concerns, would likely weigh more substantially on elevated current equity multiples.

Credit

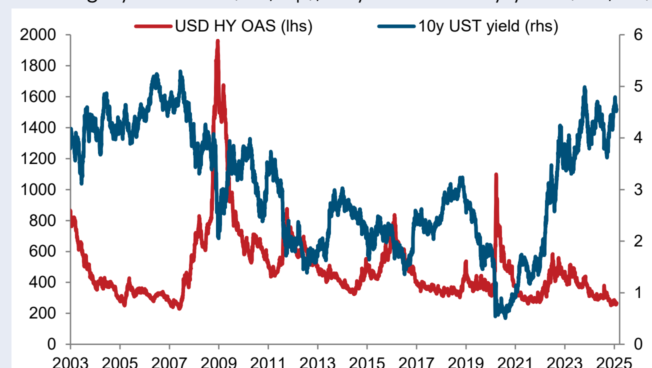
Lotfi Karoui and team

Q: How vulnerable is corporate credit to a renewed rise in US Treasury yields?

A: When it comes to the spillover from rates to credit spreads, not all rate selloffs are created equal. The drivers of the higher US Treasury yields matter more for spreads (and for risky assets more broadly) than the move itself. For most of 2022 and 2023, the combination of higher rates and wider spreads was the byproduct of an abrupt repricing of upside inflation risks and a Fed reaction function that was less sensitive to downside growth risks. But the most recent move higher in Treasury yields had a very different flavor, reflecting the continued strong growth backdrop more so than fear of inflation reacceleration. The friendlier nature of the drivers of the recent leg higher in rates largely explains why corporate bond spreads have remained anchored around their recent tights.

Credit spreads remained resilient amid the recent move higher in Treasury yields

USD high-yield OAS (lhs, bp), 10y US Treasury yield (rhs, %)



Source. Bloomberg, Goldman Sachs GIR.

Barring any disorderly price action, a growth-driven selloff that would push 10-year Treasury yields materially higher—in the vicinity of 5%—would likely be well-digested by credit spreads, as was the case in the first two weeks of this year. By contrast, should Treasury yields move higher owing to growing concerns about the risk of an inflation reacceleration and hawkish shift in the Fed's reaction function, spreads would almost surely move wider, with the low end of the quality spectrum underperforming, as was the case in 2022 and most of 2023.

With any potential move higher in rates likely to be growth-driven, we think the recent negative correlation between rates and spreads should persist. This negative correlation regime is in many ways a return to normalcy. It also provides total return investors with a solid embedded hedge against a potential risk-off episode fueled by growth concerns, as the damage from wider spreads would likely be offset by declining Treasury yields. That said, any sudden policy shifts toward larger or universal tariffs could see the correlation between spreads and yields turn positive again, which would weigh on total returns.

Optimal portfolios amid higher yields

Christian Mueller-Glissmann argues that higher bond yields argue for increased allocations to bonds in multi-asset portfolios

Higher bond yields has raised questions about the optimal allocation to bonds in multi-asset portfolios. We believe that the nature of the bond yield reset as well as current elevated equity valuations argue for a higher allocation to bonds—and a lower allocation to equities—in multi-asset portfolios, though how much higher will depend on the structural macro backdrop.

Yield increases are not created equal

Equities' ability to digest rising bond yields depends on the speed and drivers of the rate moves as well as starting valuations. Equities tend to digest rising bond yields well if yields increase gradually from low levels owing to better growth but poorly if yields increase sharply driven by hawkish monetary policy shocks (e.g., high and rising inflation) or other drivers unrelated to the growth outlook. Such was the case in 2022, when 60/40 portfolios suffered one of the largest drawdowns in 100 years.

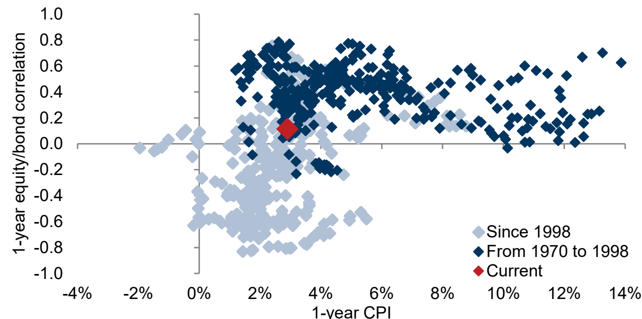
The recent reset in bond yields more closely resembles the latter scenario. Markets have rethought their expectations for the global path of monetary policy and become more concerned about fiscal policy and bond supply, driving longer-dated bond yields close to post-Global Financial Crisis (GFC) highs over a relatively short period. The accompanying selloff in US equities closely mirrored the typical experience of sharp rate rises. While these sharps moves have since retraced somewhat and we expect equities to fare better ahead on continued solid growth and a likely decline in 10y bond yields (see pg. 9) from here, equities would likely suffer if 10y Treasury yields rose above 5% in the absence of positive growth news.

A more favorable bond value proposition

So, what does that mean for the optimal portfolio mix ahead? According to Markowitz portfolio theory, the optimal portfolio weight of an asset depends on the asset's prospective relative return and risk, diversification benefits, and return vs. cash. The nature of the recent rise in yields generally paints a more favorable picture for bonds across all these dimensions, arguing for a higher allocation to bonds in multi-asset portfolios. Indeed, higher bond yields owing to reduced Fed easing expectations alongside higher bond term premia suggest a better chance of bonds outperforming cash. And under our benign macro baseline of continued inflation normalization, less positive equity/bond correlations should render bonds a more effective hedge against equity drawdowns. Relative risk also favors bonds—10y Treasury yields rising above 5% would only have a small negative impact on bonds but could weigh materially on equities given the current unfriendly drivers (i.e., higher term premia and hawkish policy repricing).

However, the most important driver of the optimal asset mix remains the relative return of equities vs. bonds. Given currently elevated equity valuations, the prospects for attractive equity vs. bond returns appear more limited, particularly over longer investment horizons when valuations become a more binding constraint. This marks a big shift from the post-Covid recovery period, when equities materially re-rated vs. bonds after over two decades of de-rating, driving the optimal asset mix to 100% equities at one point.

Equity/bond correlations tend to be less positive when inflation is low and anchored



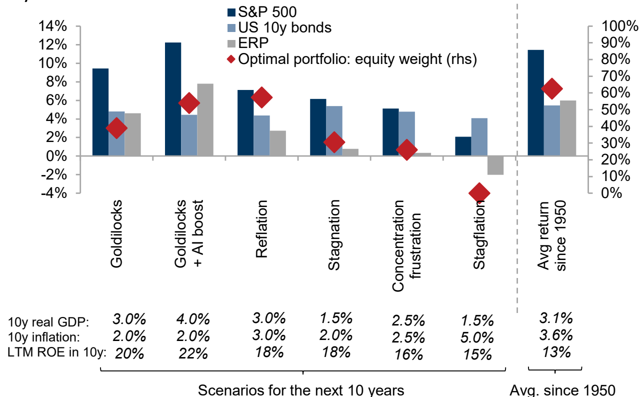
Source: Haver Analytics, Goldman Sachs GIR.

More balanced portfolio in (almost) all macro scenarios

Using our strategic tilting framework, we estimate the long-term returns for equities and bonds based on structural macro conditions[1], finding that, in most long-term scenarios, the optimal equity allocation is lower. This suggests a more balanced optimal portfolio than over the last few years—since the Covid crisis, close to 100% equities was the optimal portfolio with little benefit from bond allocations. However, outside of the most bullish scenario, both equity and 60/40 10-year return forecasts are below the average since 1950, highlighting the long-term return challenge from elevated US equity valuations. The highest equity allocation would occur in a reflation scenario in which bonds offer a worse risk/reward vs. both equities and cash. While this might not be the most likely scenario over the medium term, the new US administration's policy agenda may mean that markets keep repricing the potential for a prolonged reflation scenario in the near term.

A lower optimal equity allocation in most structural scenarios

10-year return scenarios as a function of different structural scenarios



Source: Haver Analytics, Goldman Sachs GIR.

Christian Mueller-Glissmann, Head of Asset Allocation Research

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[1] Using varying assumptions for trend GDP growth, inflation, and S&P 500 ROE, we derive six scenarios for the next decade ranging from a very positive structural Goldilocks scenario that includes an AI boost to GDP growth and the S&P 500 ROE to a stagflation scenario with weaker growth, higher inflation, and the ROE reverting to its average level since the 1990s.

Summary of our key forecasts

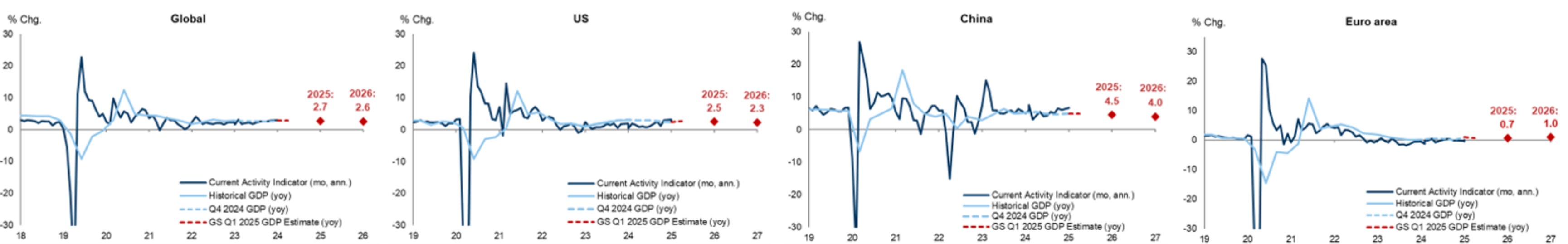
GS GIR: Macro at a glance

Watching

- **Globally,** we expect solid real GDP growth of 2.7% yoy in 2025, reflecting tailwinds from real disposable household income growth and easing financial conditions amid continued rate cuts, with US growth likely to continue outpacing its DM peers given its significantly stronger productivity growth. We expect global core inflation to fall gradually to 2.6% yoy by end-2025 on the back of a further decline in shelter inflation and steady wage disinflation but a moderate boost from US tariffs, before converging to target across DMs by end-2026.
- **In the US,** we expect above-consensus real GDP growth of 2.4% yoy in 2025 on a Q4/Q4 basis, reflecting continued healthy consumption growth supported by solid real income growth as well as strong residential and business fixed investment. We expect core PCE inflation to remain steady this year and end the year at 2.6% as further cooling in shelter inflation and easing wage pressures are offset by a moderate boost from higher tariffs. We expect the unemployment rate to decline slightly to 4.0% by end-2025.
- **We expect the Fed** to deliver two 25bp cuts this year, in June and December, followed by another 25bp cut in June 2026 to a terminal rate range of 3.5-3.75%.
- **In the Euro area,** we expect below-consensus real GDP growth of 0.7% yoy in 2025, reflecting continued structural headwinds in the manufacturing sector, trade policy uncertainty, and ongoing fiscal consolidation, with rising real household incomes and Southern Europe's economic resilience likely to keep the region as a whole out of recession. We expect core inflation to return to 2% sustainably by end-2025 amid a further cooling in services inflation, although we expect headline inflation to remain slightly above target for the entirety of 2025.
- **We expect the ECB** to continue delivering sequential 25bp cuts until the policy rate reaches 1.75% in July 2025, but faster and deeper cuts are possible if growth turns out weaker than we project.
- **In China,** we expect real GDP growth to slow to 4.5% yoy in 2025 as the significant step-up in policy easing measures only partially offsets weak domestic consumption, the ongoing property market downturn, and likely higher US tariffs. Over the longer term, we remain cautious on China's growth outlook given several structural challenges, including deteriorating demographics, a multi-year debt deleveraging trend, and global supply chain de-risking.
- **WATCH US POLICY AND GEOPOLITICAL DEVELOPMENTS.** Uncertainty about US policy remains high, and we think the risks have tilted toward higher tariffs than we currently expect, which could have more significant US growth and inflation impacts with larger growth drags in Europe and China. Geopolitical developments also remain important to watch as the situation in the Middle East remains highly uncertain, the Russia-Ukraine war drags on, and US-China relations continue to be fraught.

Goldman Sachs Global Investment Research.

Growth



Source: Haver Analytics, Goldman Sachs Global Investment Research.
Note: GS CAI is a measure of current growth. For more information on the methodology of the CAI please see "Improving Our Within-Month CAI Forecasts," Global Economics Comment, Mar. 06, 2023.

Forecasts

Economics

GDP growth (%)	2025 GS (Q4/Q4)	2025 Cons. (Q4/Q4)	2025 GS (CY)	2025 Cons. (CY)	2026 GS (CY)	2026 Cons. (CY)
Global	2.5	--	2.7	2.7	2.6	2.6
US	2.4	2.0	2.5	2.2	2.3	2.0
China	3.9	4.1	4.5	4.5	4.0	4.2
Euro area	0.6	1.1	0.7	1.0	1.0	1.2

Policy rates (%)	2025 GS	2025 Mkt.	2026 GS	2026 Mkt.
US	3.88	3.89	3.63	3.83
Euro area	1.75	1.79	1.75	1.90
China	1.10	0.92	0.90	--
Japan	0.75	0.93	1.25	0.98

Markets

Interest rates 10Yr (%)	Last	E2025	E2026
US	4.52	4.35	4.45
Germany	2.37	1.90	2.00
Japan	1.28	1.60	2.00
UK	4.42	4.00	4.00

FX	Last	3m	12m
EUR/$	1.04	1.00	0.97
GBP/$	1.25	1.23	1.20
$/JPY	155	160	162
$/CNY	7.23	7.40	7.50

Commodities	Last	3m	12m
Crude Oil, Brent ($/bbl)	76	80	76
Nat Gas, NYMEX ($/mmBtu)	3.25	3.50	4.15
Nat Gas, TTF (EUR/MWh)	51.94	42	38
Copper ($/mt)	9,025	9,600	10,650
Gold ($/troy oz)	2,844	2,700	2,930

Credit (bp)		Last	2Q25	4Q25
USD	IG	80	83	85
	HY	266	290	300
EUR	IG	103	121	125
	HY	308	338	350

Equities

S&P 500	E2025 GS	E2025 Cons.	E2026 GS	E2026 Cons.
Price	6,500			
EPS	$268	$271	$288	$309
Growth	11%	11%	7%	14%

Returns (%)	12m	YTD	E2025 P/E
S&P 500	8	2.7	22.5x
MXAPJ	8	-1.7	13.5x
Topix	13	5.6	15x
STOXX 600	1	0.9	14x

Consumer	2025 CPI (%, yoy)	2025 Unemp. Rate	2026 CPI (%, yoy)	2026 Unemp. Rate
US	2.6	4.0	2.3	3.8
Euro area	2.5	6.5	2.0	6.6
China	0.4	--	1.4	--

Wage Tracker 2024 (%)	Q1	Q2	Q3	Q4
US	4.4	4.3	4.1	4.0
Euro area	--	--	--	--
China	--	--	--	--

Source: Bloomberg, Goldman Sachs Global Investment Research. For important disclosures, see the Disclosure Appendix or go to www.gs.com/research/hedge.html.

Market pricing as of February 4, 2025

Glossary of GS proprietary indices

Current Activity Indicator (CAI)

GS CAIs measure the growth signal in a broad range of weekly and monthly indicators, offering an alternative to Gross Domestic Product (GDP). GDP is an imperfect guide to current activity: In most countries, it is only available quarterly and is released with a substantial delay, and its initial estimates are often heavily revised. GDP also ignores important measures of real activity, such as employment and the purchasing managers' indexes (PMIs). All of these problems reduce the effectiveness of GDP for investment and policy decisions. Our CAIs aim to address GDP's shortcomings and provide a timelier read on the pace of growth.

For more, see our CAI page and Global Economics Analyst: Trackin' All Over the World – Our New Global CAI, 25 February 2017.

Dynamic Equilibrium Exchange Rates (DEER)

The GSDEER framework establishes an equilibrium (or "fair") value of the real exchange rate based on relative productivity and terms-of-trade differentials.

For more, see our GSDEER page, Global Economics Paper No. 227: Finding Fair Value in EM FX, 26 January 2016, and Global Markets Analyst: A Look at Valuation Across G10 FX, 29 June 2017.

Financial Conditions Index (FCI)

GS FCIs gauge the "looseness" or "tightness" of financial conditions across the world's major economies, incorporating variables that directly affect spending on domestically produced goods and services. FCIs can provide valuable information about the economic growth outlook and the direct and indirect effects of monetary policy on real economic activity.

FCIs for the G10 economies are calculated as a weighted average of a policy rate, a long-term risk-free bond yield, a corporate credit spread, an equity price variable, and a trade-weighted exchange rate; the Euro area FCI also includes a sovereign credit spread. The weights mirror the effects of the financial variables on real GDP growth in our models over a one-year horizon. FCIs for emerging markets are calculated as a weighted average of a short-term interest rate, a long-term swap rate, a CDS spread, an equity price variable, a trade-weighted exchange rate, and—in economies with large foreign-currency-denominated debt stocks—a debt-weighted exchange rate index.

For more, see our FCI page, Global Economics Analyst: Our New G10 Financial Conditions Indices, 20 April 2017, and Global Economics Analyst: Tracking EM Financial Conditions – Our New FCIs, 6 October 2017.

Goldman Sachs Analyst Index (GSAI)

The US GSAI is based on a monthly survey of GS equity analysts to obtain their assessments of business conditions in the industries they follow. The results provide timely "bottom-up" information about US economic activity to supplement and cross-check our analysis of "top-down" data. Based on analysts' responses, we create a diffusion index for economic activity comparable to the ISM's indexes for activity in the manufacturing and nonmanufacturing sectors.

Macro-Data Assessment Platform (MAP)

GS MAP scores facilitate rapid interpretation of new data releases for economic indicators worldwide. MAP summarizes the importance of a specific data release (i.e., its historical correlation with GDP) and the degree of surprise relative to the consensus forecast. The sign on the degree of surprise characterizes underperformance with a negative number and outperformance with a positive number. Each of these two components is ranked on a scale from 0 to 5, with the MAP score being the product of the two, i.e., from -25 to +25. For example, a MAP score of +20 (5;+4) would indicate that the data has a very high correlation to GDP (5) and that it came out well above consensus expectations (+4), for a total MAP value of +20.

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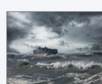
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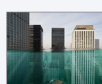
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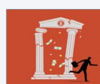
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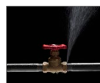
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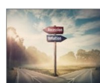
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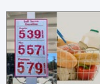
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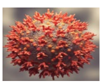
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Disclosure Appendix

Reg AC

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