Goldman Sachs Research

Economics Research

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GLOBAL RATES TRADER

Relaxed, Not Relieved

Last week's range break in long-end US yields gave way to stabilization amid lower energy prices and supportive headlines out of the UK and Japan. The fundamental challenges are still broadly in place, however, and while long-end USTs are slightly cheap to fair, valuations are not sufficiently stretched to make the case for a deeper rally without a shift in macro risks. European rates continue to outperform as duration is protected by front-footed central bank action—we expect this to continue and recommend long 5y5y EUR real rates. European sovereign credit may have less room to tighten but still offers reasonable carry that should be insulated from front-end rates volatility. There is a growing valuation case for long Gilts, assisted by weakening activity data. But with political risks lingering, compression in Gilt risk premium is likely to be gradual. The moderation in long-end JGB yields partly reflects the ongoing sensitivity to supply/demand dynamics, but we continue to think that without inflation moderation or fiscal restraint, it is up to policy rate outcomes to bring lasting stability to long-end yields.

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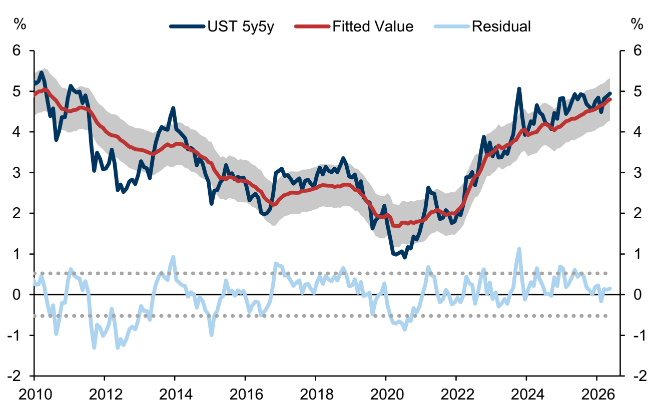
United States and Canada

- **Settling down, but not yet turning around.** The sharp selloff that extended into the start of this week found some stability, helped in part by lower energy prices amid another round of optimism about a potential resolution to the conflict. Additionally, just as foreign factors had been a source of bearish spillovers onto US duration through the first several months of the year, quieting domestic news in the UK and Japan helped with the stabilization effort. Even with yields down from the recent (and in the case of 30s, cycle) peak, they remain in the upper part of the range and are still lacking the ingredients for a more sustained reversal. A genuine resumption of energy flows is one route to rate relief, while evidence that the underlying inflation and growth/labor market paths are more dovish than the market anticipates is another; our baseline for lower yields over time is based on a mix of these two factors materializing. Sufficiently cheap valuations and a clearer challenge to risk assets from elevated yield levels is a third potential path to moderation. As things stand, longer-term forwards are modestly above our macro framework's estimate of fair, but valuations aren't stretched (Exhibit 1). Further, the mix of global pressures, the supply shock's damage to duration's portfolio value, and underlying effects from a more debt financed investment cycle—a backdrop that we've found can raise the sensitivity of yields to debt supply and skew longer term yields higher relative to our model fair value—for now challenge the case for a deeper rally without a macro catalyst.

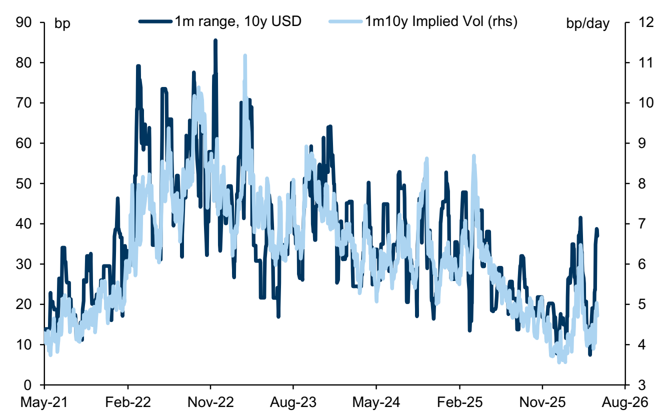
- **Convexity risk and the range break.** Last week's break above 4.5% and 5.0% in 10-year and 30-year US Treasury yields brought an uptick in rate volatility and questions about whether negative convexity dynamics may have played an amplifying role after strong performance of short gamma strategies in April, and a more sustained period of GSE mortgage purchases. On rate vol specifically, the implied volatility response has been relatively mild compared to the magnitude of the yield range shift (Exhibit 2). That noted, our estimate of gamma exposure in TY options suggests the selloff this month resulted in an abrupt shift away from "peak" gamma (which we estimate was around 4.4%); to the extent that vol sellers are less frequent/threshold hedgers (and dealers are net long vol and hedging more actively), it is possible that the sharp move resulted in a relative pick-up in short gamma hedging. On the mortgage side, although GSE-retained portfolios have grown substantially—FNMA's more than doubled and FHLMC's grew by ~50% over the 12 months through March—their hedging behavior remains unclear, as the accumulation of larger duration gaps suggests increased tolerance for interest rate risk. We estimate the selloff from the start of May to the yield peak implied an extension worth roughly $40 billion in 10-year equivalents for the universe of MBS held by traditional hedgers, but given the observed comfort with a larger duration gap, it is less clear how much was actually hedged. While we think the underlying pressures and yield valuations primarily reflect fundamental risks, these dynamics plausibly helped to amplify the price action in the more acute phase of the selloff. Looking ahead, we think the potential magnitude of any hedging should diminish given selloffs should bring less extension risk from here, while rallies would help to undo any accumulated duration gap.

Exhibit 1: Longer term UST forwards are only modestly cheap to our macro framework's estimate of fair value
5y5y UST yield vs model fair value with +/-1 standard deviation bands



Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 2: Implied vol has lagged the magnitude of the rate shift
1m trailing range on 10y swap vs 1m10y implied vol



Source: Goldman Sachs FICC and Equities, Goldman Sachs Global Investment Research

- **Funding costs ease further.** Repo rates continued to decline this week, and while the broader trend suggests reserve demand has likely shifted relative to late last year, we think a few other factors have likely exacerbated the move. First, as noted previously, negative bill issuance had combined with Fed reserve management purchases (RMPs) and a drop in the TGA to constrain bill supply and boost system-wide liquidity; those effects are starting to turn. Second, this week overlaps with GSEs' "float period," during which MBS issuers build up cash reserves that temporarily deploy into the repo market ahead of making principal and interest payments. Third, limited carry in cash/futures bases may have led to reduced demand for leverage, with a steady reduction in levered funds' short position (Exhibit 3). We expect some reversal of this downdraft in funding costs over the coming weeks. Bill issuance has turned positive and the Fed has reduced RMPs, any effects from the "float period" should fade, and the TGA is likely to increase to levels closer to Treasury's target over the coming month. Even accounting for these factors, we think there is likely scope for RMPs to slow further, with our baseline for purchases to decline to a $5bn per month average until early 2027, which we expect to take the steady state level of reserves to ~11% of bank assets (versus 11.5-12.0% recently)—levels we estimate are consistent with tri-party rates settling slightly below IORB. As discussed earlier this week, there are downside risks to our Fed balance sheet projections, but we see a high bar to a meaningful decline in balance sheet size.

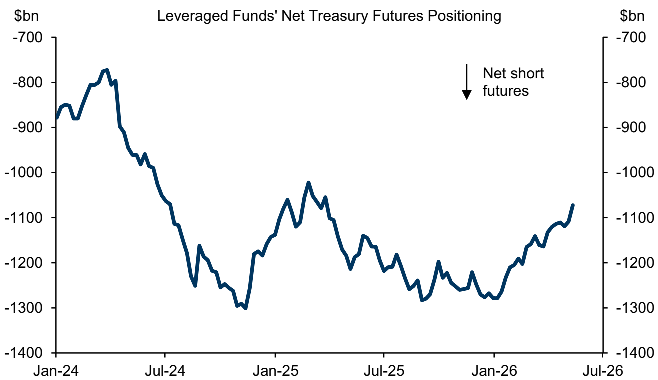
- **Fourth consecutive downside inflation surprise makes two-sided BoC outlook.** Despite unfavorable base effects and the energy shock, Canadian CPI surprised to the downside for the fourth consecutive time this week. We think this reinforces the on-hold baseline for the BoC and argues for more two-sided risks around that modal case than market pricing implies. Benign underlying inflation (CPI-trim is back at the BoC's target), a pickup in the unemployment rate and soft growth were the ingredients that caused a restart of the BoC's cutting cycle late last year. And with those conditions present again, and transmission from higher oil prices to other categories limited thus far, we see further room for front-end hike premium to fade, especially in the near term. Given greater insulation against directional shifts in the oil price trajectory, we continue to like expressing this via 2s5s CAD curve steepeners, and given recent performance have tightened the stop, but would look to shift to outright longs if the front-end cheapens from here.

Europe

- **Improving risk-reward for EUR rate longs.** With the market still buffeted by energy prices (in both directions), we continue to think that EUR rates markets have broadly done enough to reprice inflation risk stemming from the conflict in Iran, even as the absence of tangible signs of progress limits the scope for European rates to rally. This week's PMIs highlight the ongoing passthrough of energy price pressures to broader inflation measures, while weakness in activity data points to precautionary rather than urgent ECB action. We expect this to solidify pricing for a June hike, while 1y1y will likely continue to be the point of the curve most sensitive to shifts in commodities markets. Further out the curve, we continue to see evidence that a front-footed central bank response should help anchor yields, with 5y5y forwards in EUR (and AUD — an early hiker) outperforming other curves. This is consistent with our spillover framework, which shows that Bunds have contributed bullish shocks to

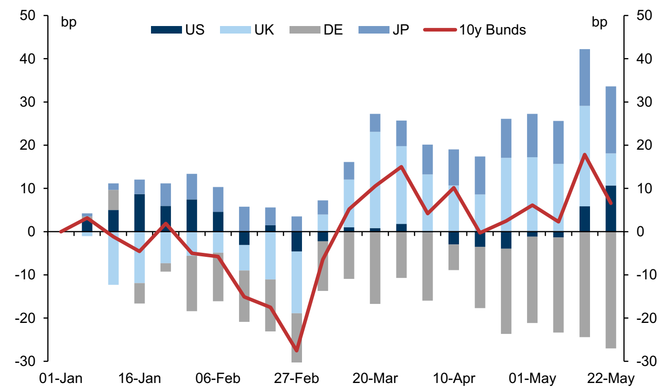
G4 rates during the global sell-off (Exhibit 4). We think this dynamic will continue — while a protracted closure of the Strait of Hormuz may still see European rates move higher, we would expect this to be front-end-led, with the curve flattening and inverting. We continue to recommend 5y5y real yields longs.

Exhibit 3: The reduction in levered fund shorts in Treasury futures may in part reflect the diminished carry in Treasury basis
Leveraged fund net UST futures position (notional, adjusted for valuation changes)



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

Exhibit 4: Bunds have been a receiver rather than provider of bearish shocks
G4 yields decomposition following our spillover framework

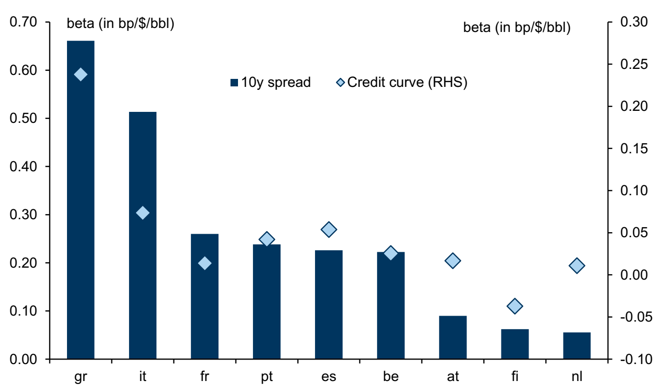


Source: Goldman Sachs Global Investment Research, Bloomberg

- **Status quo in European sovereign spreads.** Amid the stalemate in the conflict in Iran, sovereign spread compression has broadly stalled after a strong period of tightening. We continue to think that rates volatility will prove a better guide to sovereign credit performance than rates levels. As long as re-escalation is avoided, sovereign spreads can remain near current tights and offer reasonable carry, despite high and sticky front-end rates. We continue to recommend sovereign spread longs (FR, IT, and ES) vs ESTR at the front-end of the curve. For a more directional view on the conflict, we find that Greek and (to a lesser extent) Italian bonds continue to provide the strongest exposure to potential commodities price relief (Exhibit 5). Albeit with a lower beta, we note that the Spanish credit curve has also exhibited a strong sensitivity to oil price shifts. Government fiscal support across European economies for households and firms also remains contained — while some relief has been extended in France for instance, it remains modest in comparison to the 2022 energy shock. As long as this remains the case, we continue to think sovereign credit offers reasonable carry and should remain somewhat insulated from an increase in front-end rates volatility.

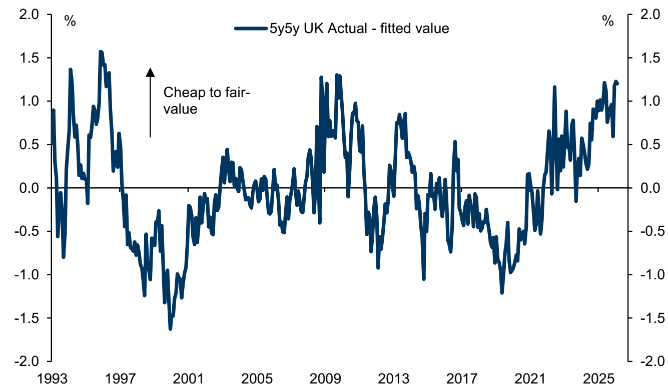
- **Gilts gain from softer data.** Macro data weakened in the UK this week, with downside surprises in inflation, the labour market, services PMIs and retail sales. Energy and supply chain pressures are still likely to build throughout 2026, as illustrated by the strength in PPI, but we think this weakening in broad activity data reinforces our view that the BoE will remain on hold. We continue to expect Gilts to rally over the medium term despite lingering risk premium associated with political and fiscal risks. In our view, this rally will be driven by the ongoing repricing of a more dovish BoE path rather than a compression in risk premium. With any potential leadership challenge likely to follow a lengthy process, Gilt risk premium is unlikely to relax decisively; however, we increasingly see a positive valuation case to be long 10y Gilts — both on an overshoot of rate expectations vs what we forecast the BoE will deliver, and on 5y5y, which sits high relative to our valuation framework (Exhibit 6).

Exhibit 5: In the EMU-4, Italian bonds look best placed to benefit from potential oil price relief
Using GS fitted yields. Credit curve = 5s10s Country XX – Germany. Beta computed since the start of the Iran conflict.



Source: Goldman Sachs Global Investment Research, Goldman Sachs FICC and Equities

Exhibit 6: UK 5y5y levels look stretched from a macro perspective
Difference between UK 5y5y and fair value



Source: Goldman Sachs Global Investment Research, Goldman Sachs FICC and Equities, Bloomberg, Consensus Economics

Japan

- **Long-end meets rate relief.** Comments from Governor Ueda brought some reprieve to pressure on long-end JGBs this week, as he emphasized that the BoJ would coordinate with the government to watch the bond market with a focus on rising long-term bond yields, and that the Bank would conduct interest rate policy for "stable inflation." This focus on supply risks, particularly after the supplementary budget announcement, and the perceived validation of hike pricing saw long-end yields move lower and the front-end cheapen slightly. That said, our economists do not think a change to the BoJ QT path in June is likely following the results of the latest Bond Market Survey. While this could incrementally reverse some long-end rate relief, we still think interest rate policy remains the key driver for yields and risk premium across the curve. The latest JSDA data show that lifers net purchased super long-term bonds in April, as they had been signaling some openness to do, following net sales from Jan-Feb. If sustained, these purchases could alleviate pressure on 30s, but it remains to be seen whether this appetite only materializes during periods of relative market calm—longer term JGB yields were relatively stable in April before volatility picked back up in May. Ultimately, while supply risks remain, we continue to think that it is up to macro factors—inflation moderation, fiscal restraint, or front-loaded rate policy—to bring lasting stability to long-end yields.

Australia and New Zealand

- **Too early to relax about RBA hike risk.** The unexpected pickup in the unemployment rate caused a relief rally across the AUD curve, taking yields close to the post-March lows. While the data likely delays the timing of the next hike (our economists now expect the RBA to hike in August, vs June before) we still think markets are underpricing near-term hawkish risks, with only 19bp of hike risk priced through September. We think this is at odds with the minutes released this week, which stated that while the previous hikes have provided some space to assess the conflict's impact, the growth impact from higher oil prices is likely to be cushioned, and instead highlighting the upside risks to the inflation forecast. Next week's inflation print may offer incremental clarity into the urgency for further hikes. Given current cheapness and RBA's doubts on how restrictive the current stance is, we think positions such as paying September RBA vs terminal rate longs make sense, as we still see room for 2y1y to decline, especially should a forceful RBA reaction function begin to slow activity more acutely.

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Forecasts

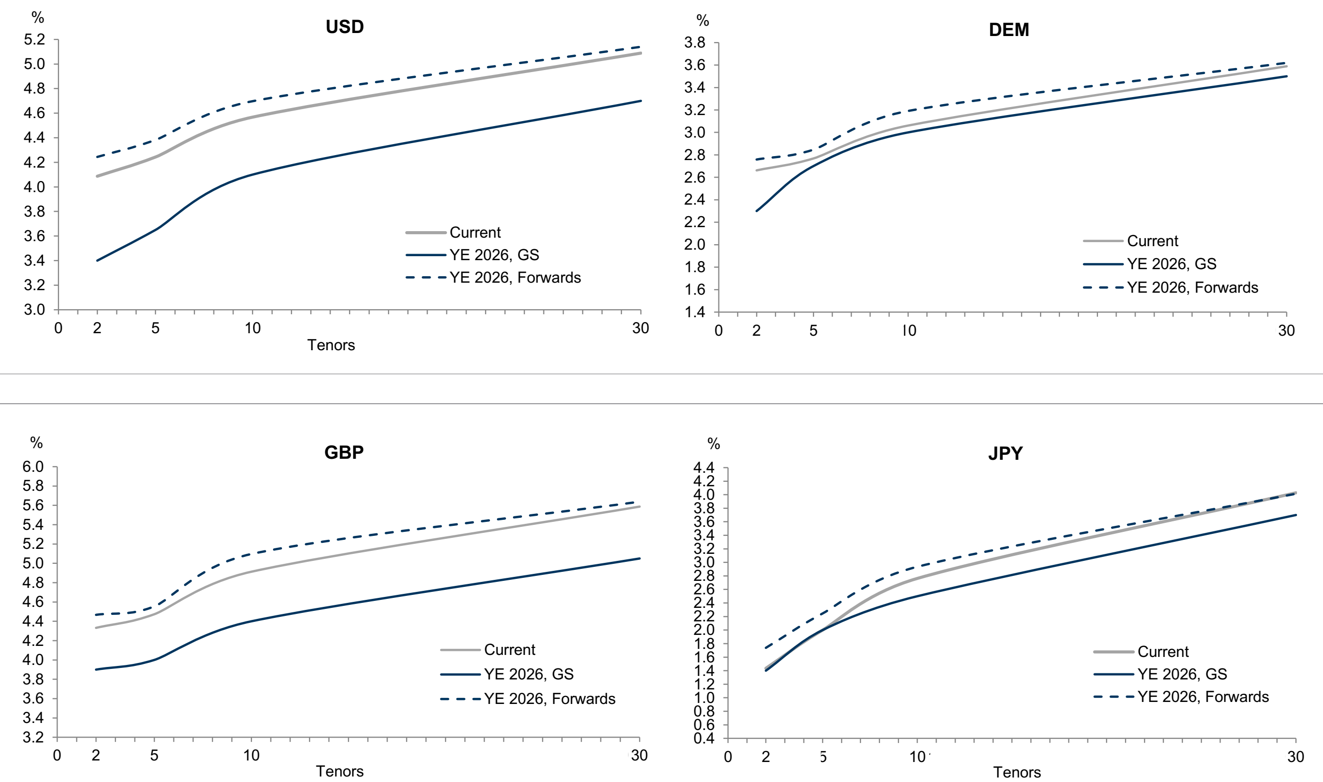
G10 10y yield forecast

G10 10-Year Yield Forecasts													
	USD	DEM	FRA	ITA	ESP	GBP	JPY	CAD	CHF	SEK	NOK	AUD	NZD
Spot	**4.57**	**3.06**	**3.68**	**3.79**	**3.49**	**4.91**	**2.76**	**3.55**	**0.58**	**2.84**	**4.48**	**4.92**	**4.69**
2Q26	4.30	2.90	3.65	3.70	3.45	4.65	2.50	3.45	0.30	3.15	4.10	4.85	4.50
3Q26	4.20	2.95	3.70	3.80	3.50	4.50	2.50	3.50	0.40	3.20	4.00	4.75	4.50
4Q26	**4.10**	**3.00**	**3.75**	**3.85**	**3.55**	**4.40**	**2.50**	**3.50**	**0.50**	**3.25**	**4.00**	**4.70**	**4.50**
1Q27	4.10	3.00	3.75	3.90	3.60	4.40	2.45	3.50	0.50	3.25	4.00	4.60	4.50
2Q27	4.10	3.00	3.75	3.90	3.60	4.30	2.40	3.50	0.50	3.25	4.00	4.50	4.50
3Q27	4.15	3.00	3.75	3.90	3.60	4.30	2.30	3.50	0.50	3.25	4.00	4.50	4.50
4Q27	**4.15**	**3.00**	**3.75**	**3.90**	**3.60**	**4.25**	**2.25**	**3.50**	**0.50**	**3.25**	**4.00**	**4.50**	**4.50**

Deviation from Forwards													
	USD	DEM	FRA	ITA	ESP	GBP	JPY	CAD	CHF	SEK	NOK	AUD	NZD
2Q26	-0.29	-0.19	-0.08	-0.13	-0.07	-0.31	-0.29	-0.13	-0.28	0.32	-0.38	-0.09	-0.22
3Q26	-0.45	-0.20	-0.12	-0.12	-0.08	-0.55	-0.35	-0.14	-0.22	0.35	-0.47	-0.21	-0.28
4Q26	-0.60	-0.19	-0.12	-0.14	-0.08	-0.70	-0.44	-0.18	-0.14	0.37	-0.46	-0.28	-0.35
1Q27	-0.65	-0.23	-0.17	-0.15	-0.08	-0.74	-0.56	-0.21	-0.16	0.34	-0.46	-0.41	-0.42

Source: Goldman Sachs Global Investment Research

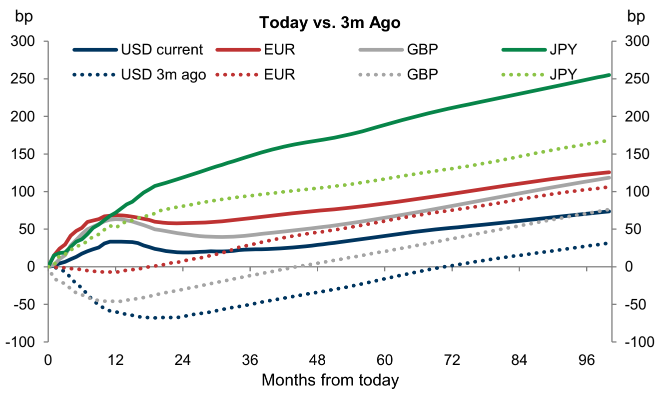
G4 Curve Forecast



Source: Bloomberg, Goldman Sachs Global Investment Research

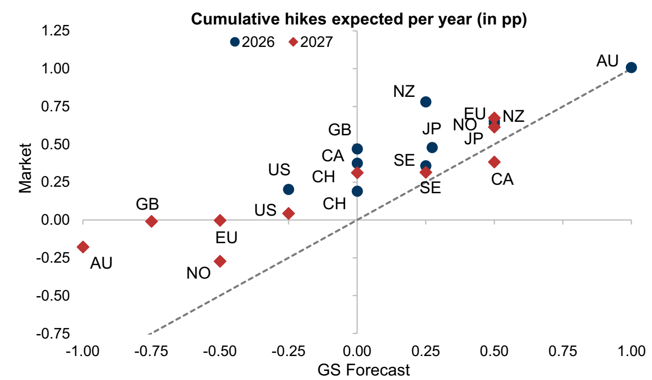
Central Bank Dashboard

Cumulative amount of hikes/cuts priced from today



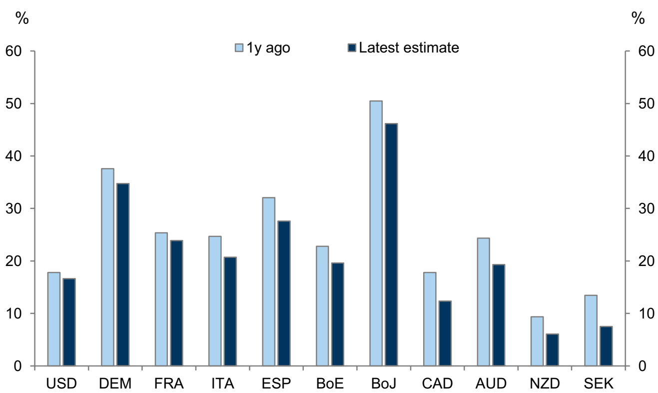
Source: Goldman Sachs Global Investment Research

Expected hikes by year, GS vs. Market



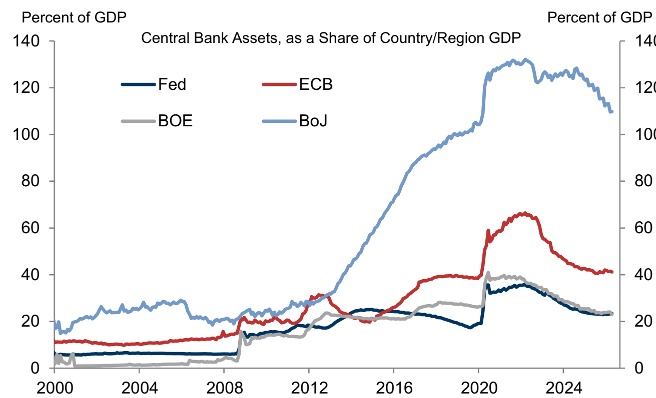
Source: Goldman Sachs Global Investment Research

Central bank ownership of sovereign bonds, current vs. 1y ago



Source: Haver Analytics

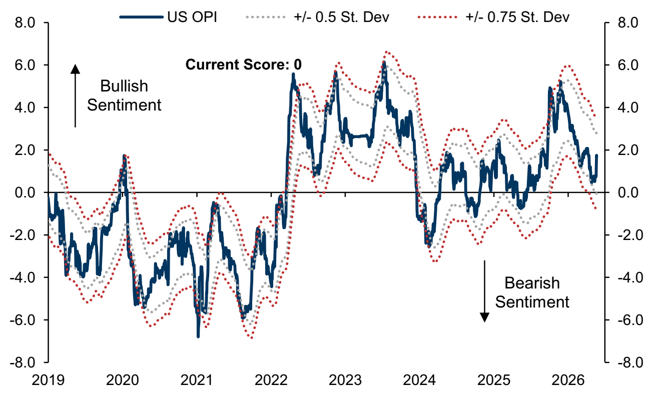
Central bank assets as a share of GDP



Source: Haver Analytics

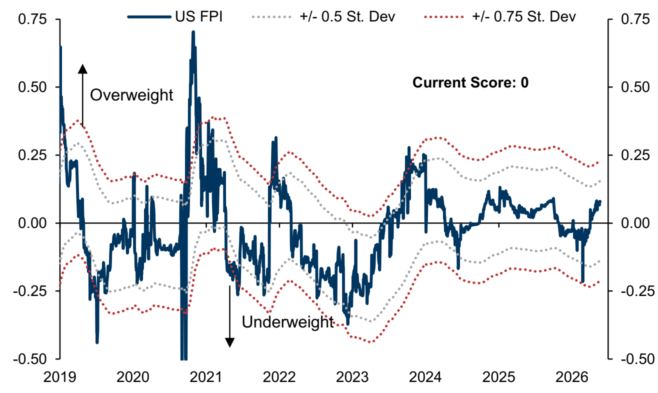
Positioning and Flows Monitor

Option implied position indicator



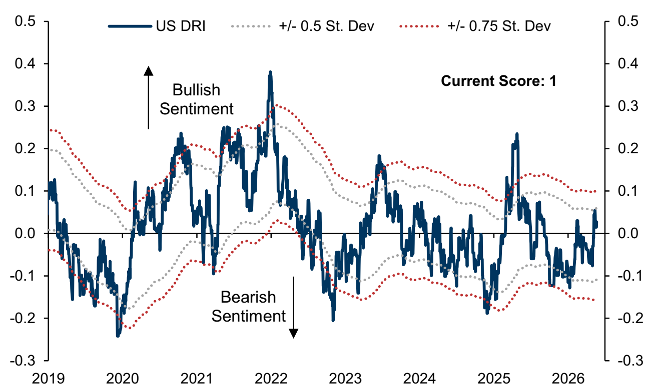
Source: Goldman Sachs Global Investment Research

GS Fund Positioning Indicator



Source: Goldman Sachs Global Investment Research

US Data Response Indicator (DRI)



Source: Goldman Sachs Global Investment Research

CFTC Commitment of Traders and Traders in Financial Futures

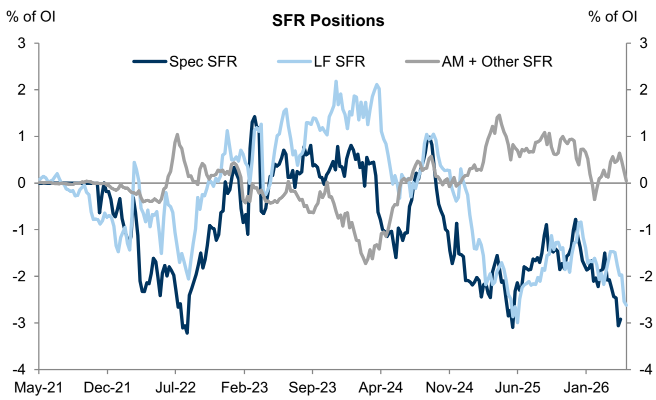
Duration-weighted net position by investor type

Duration-Weighted Positioning, by Contract

$mm/bp	SFR	TU	FV	TY	TN	US	WN
Spec Current	-44.3	-55.9	-55.6	-47.0	-7.8	-24.3	-41.5
Spec 1w Change	-1.1	2.4	3.4	-1.3	1.4	-1.2	3.9
LF Current	-45.6	-67.7	-96.1	-122.6	-21.6	-42.3	-151.6
LF 1w Change	-4.3	2.9	5.1	1.4	2.6	-3.1	1.7
AM + Other Current	1.0	76.9	116.9	141.6	54.4	61.0	200.8
AM + Other 1w Change	-4.4	-3.5	-2.2	-0.9	-3.7	3.3	-0.9
Dealer Current	44.6	-12.1	-23.5	-21.9	-21.4	-31.8	-46.6
Dealer 1w Change	8.7	0.5	-2.6	1.3	1.2	-1.8	-0.1

Source: CFTC, Goldman Sachs Global Investment Research

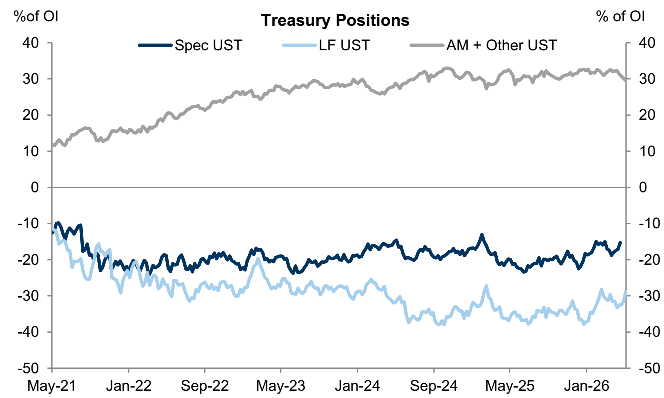
Net positions in Eurodollars



Note: Duration-weighted net position (long - short) as a % of duration-weighted gross exposure (long + short + spreading)

Source: CFTC, Goldman Sachs Global Investment Research

Net positions in UST futures

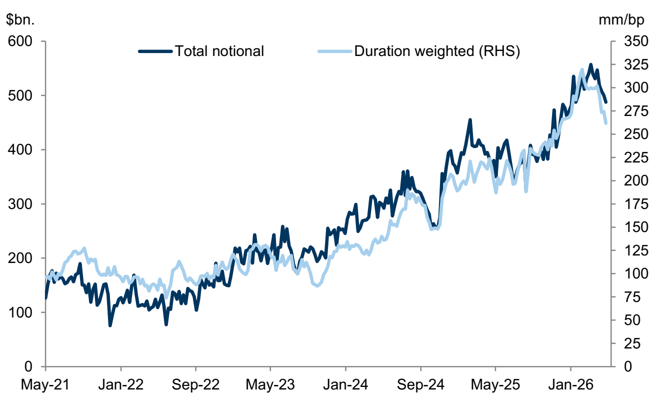


Note: Duration-weighted net position (long - short) as a % of duration-weighted gross exposure (long + short + spreading)

Source: CFTC, Goldman Sachs Global Investment Research

Primary dealer transactions

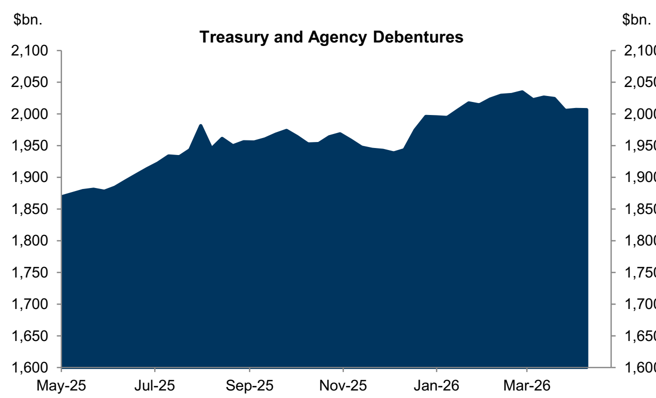
Net dealer position in US Treasuries



Source: Federal Reserve Bank of New York, Goldman Sachs Global Investment Research

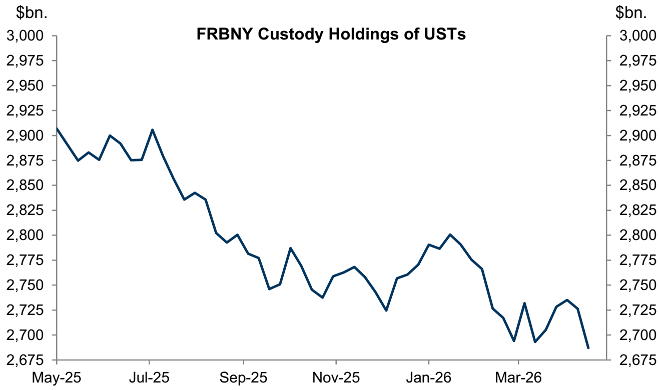
US Commercial Banks' Holdings of Treasury and Agency Securities

Total domestic and foreign holdings, all commercial banks



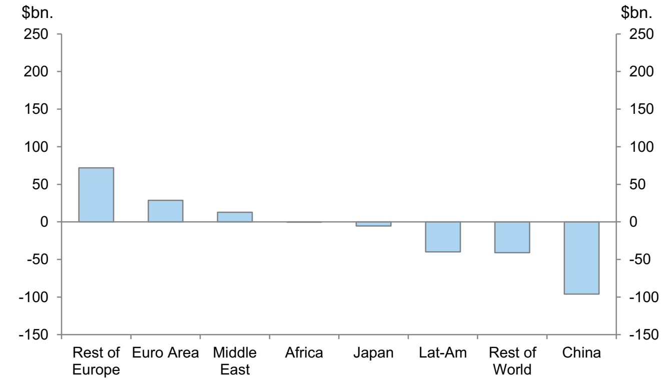
Source: Federal Reserve Board

NY Fed Custody Holdings
Marketable US Treasuries



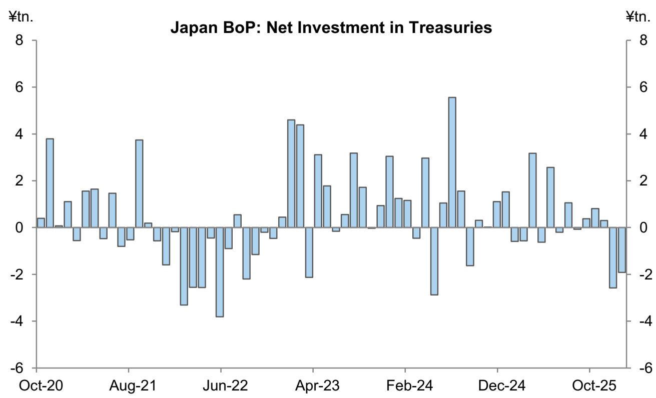
Source: Federal Reserve Bank of New York

US TIC Treasury Flows
12m change in valuation-adjusted holdings of USTs, by holder of debt



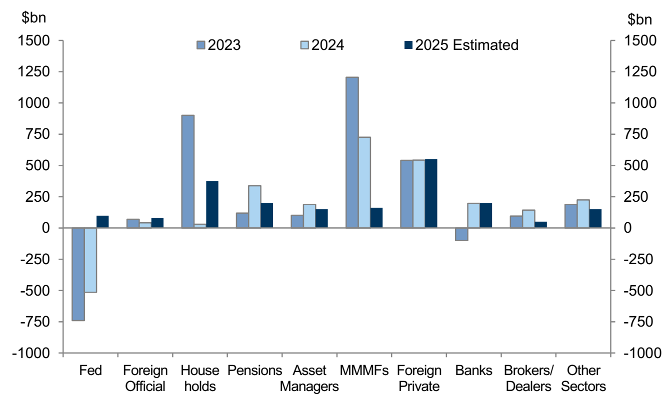
Source: US Treasury, Goldman Sachs Global Investment Research

Net monthly purchases of short- and long-term US Treasuries by Japanese investors



Source: Bank of Japan, Haver Analytics

Flow of Funds annual net purchases of US Treasuries, by sector

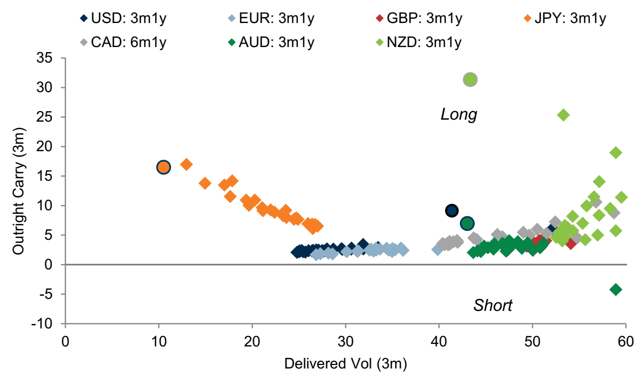


Source: Federal Reserve Board, Goldman Sachs Global Investment Research

Carry/Rolldown Monitor

Outright Carry

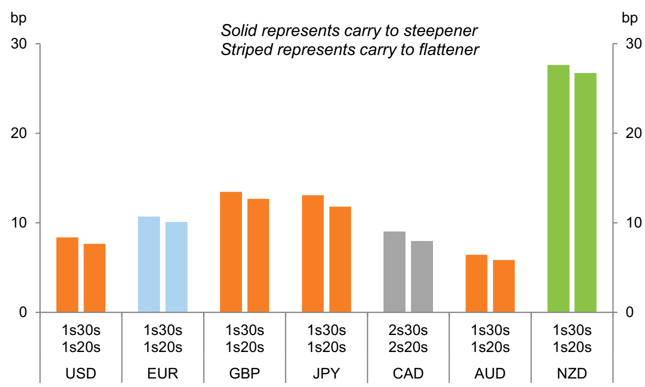
Bar chart shows top two carry points by currency, with solid reflecting carry to a long position and striped carry to a short position. Scatter illustrates top 25 carry/vol points by currency, with top point by currency noted

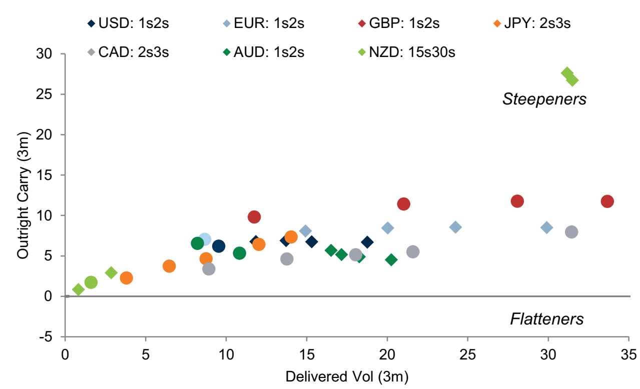


Source: Goldman Sachs Global Investment Research

Curve Carry

Bar chart shows top two carry curves by currency, with solid reflecting carry to a steepening position and striped carry to a flattening position. Scatter illustrates top 5 carry/vol curves by currency, with top curve by currency noted

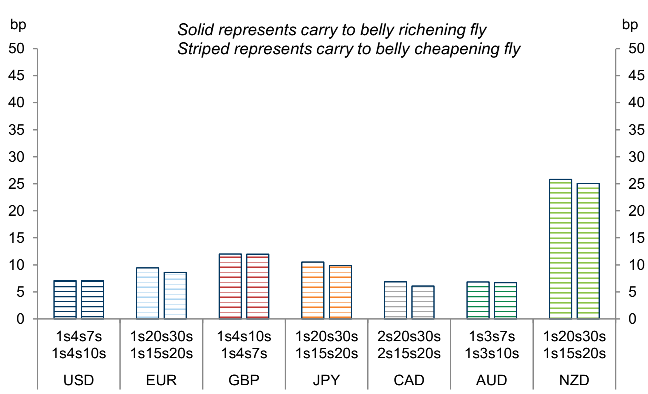


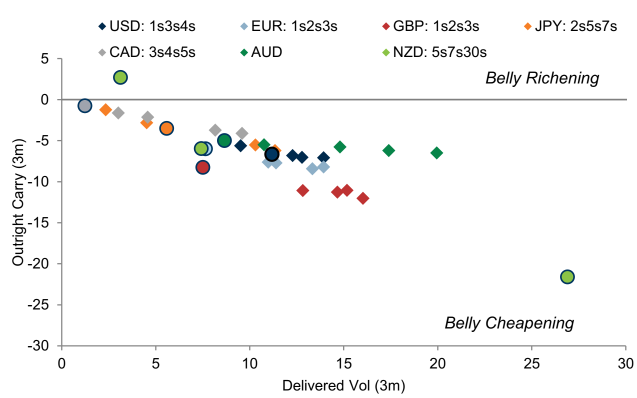


Source: Goldman Sachs Global Investment Research

Fly Carry

Bar chart shows top two carry flies by currency, with solid reflecting carry to a belly-richening fly and striped carry to a belly-cheapening fly. Scatter illustrates top 5 carry/vol flies by currency, with top fly by currency noted.





Source: Goldman Sachs Global Investment Research

Treasury Supply Monitor

Gross Treasury auction size estimates by year end, with GS projections

Monthly Auction Amounts at End of Calendar Year ($ billions)											
	2y FRNs	2y	3y	5y	7y	10y	20y	30y	5y TIPS	10y TIPS	30y TIPS
YE-25 (CY)	30 / 28 (r)	69	58	70	44	42 / 39 (r)	16 / 13 (r)	25 / 22 (r)	26 / 24 (r)	21 / 19 (r)	9 / 8 (r)
YE-26 (CY, GS)	30 / 28 (r)	69	58	70	44	42 / 39 (r)	16 / 13 (r)	25 / 22 (r)	26 / 24 (r)	21 / 19 (r)	9 / 8 (r)
YE-27 (CY, GS)	33 / 30 (r)	83	72	84	58	42 / 39 (r)	16 / 13 (r)	25 / 22 (r)	28 / 26 (r)	21 / 19 (r)	9 / 8 (r)

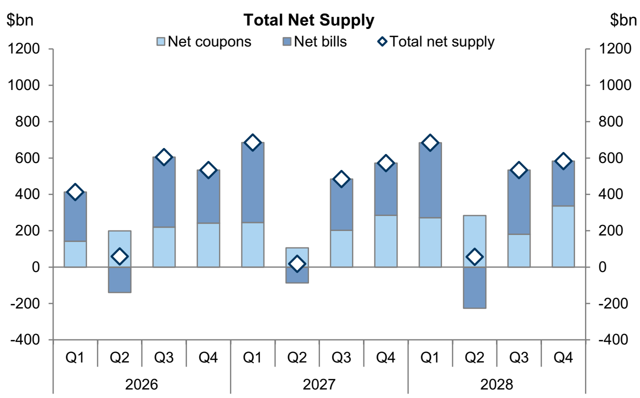
* Original Issue / Reopening listed for FRNs, 10s, 20s, 30s, and TIPS.

US Treasury Net Issuance by Calendar Year ($ billions)						
	Net Coupons	Fed	Net of Fed	Net Bills	Fed	Net of Fed
CY 2024	1346	-475	1821	511	-23	534
CY 2025	1566	-115	1681	360	38	322
CY 2026, GS	1225	-1	1226	811	422	389
CY 2027, GS	1286	0	1286	927	449	478

Duration supply ($bn 10y equiv)		
Gross supply	Fed	Net of Fed
2765	0	2765
2797	0	2797
2803	0	2803
2996	0	2996

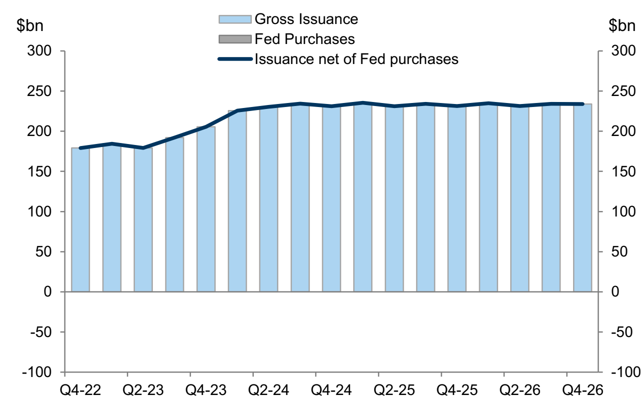
Source: Goldman Sachs Global Investment Research, US Department of the Treasury

Net issuance per quarter



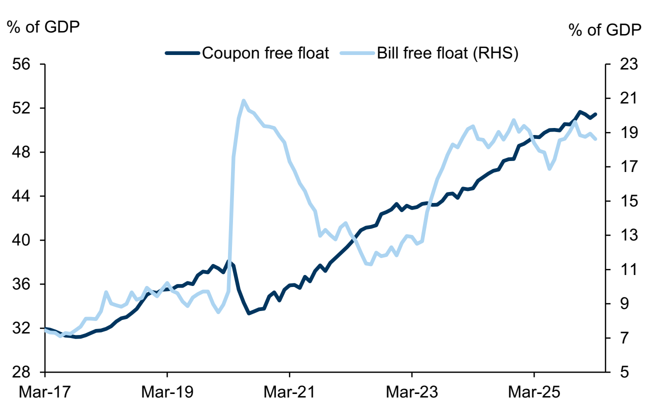
Source: Goldman Sachs Global Investment Research, US Department of the Treasury

Average monthly UST issuance, gross and net of Fed purchases; $bn 10y equivalents



Source: Goldman Sachs Global Investment Research, US Department of the Treasury

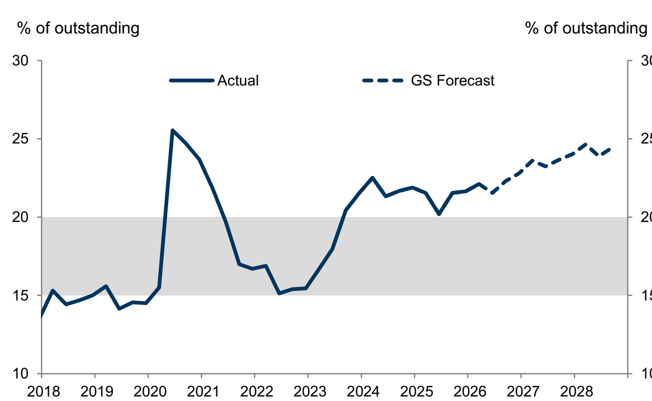
Free float (Treasuries outstanding less Fed and foreign official holdings) as % of GDP



Source: Haver Analytics, US Treasury, Goldman Sachs Global Investment Research

Bills as a share of Treasuries outstanding and GS forecast

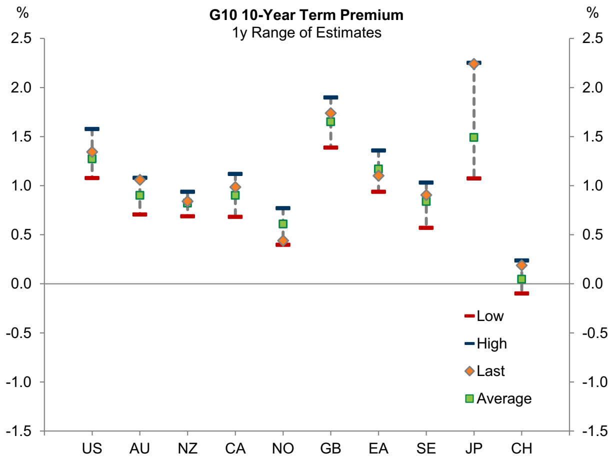
Gray shading denotes TBAC recommended 15-20% range

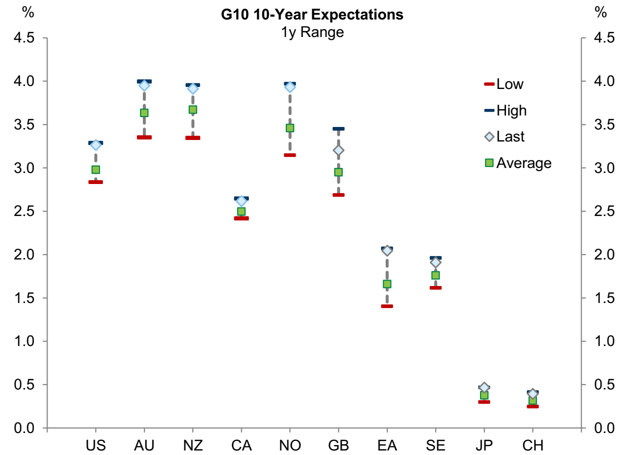


Source: US Treasury, Goldman Sachs Global Investment Research

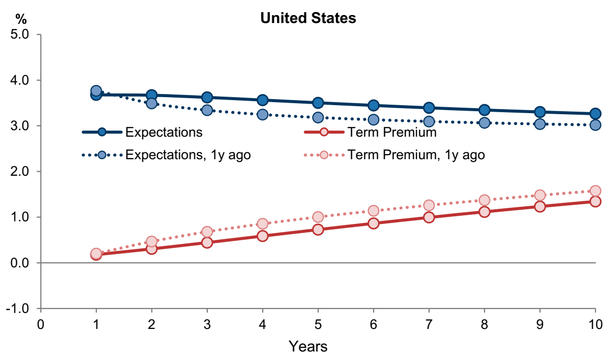
GS Term Premium Decomposition

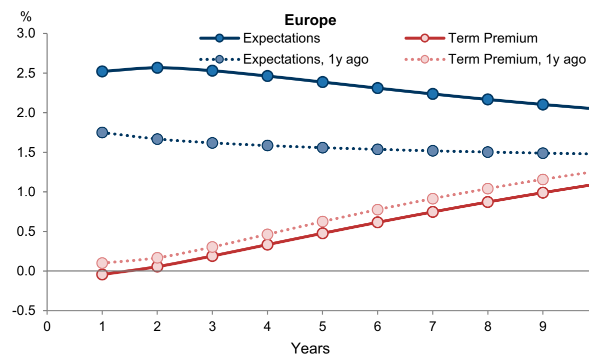
1y Range of G10 10y Yields, by Term Premium and Expectations Components

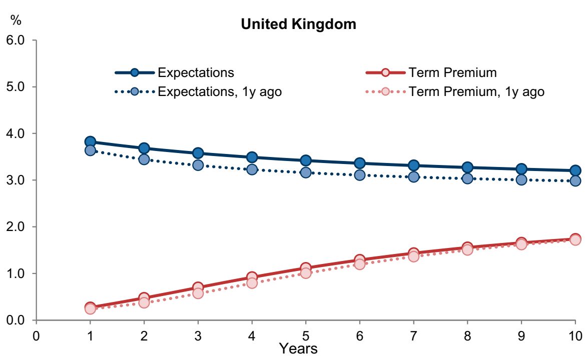


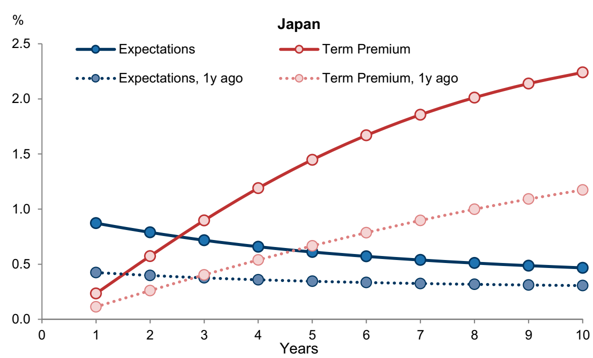


Term Structure of Fitted Yields, by Component









Source: Goldman Sachs Global Investment Research

2026 Trade Recommendations

GS Rates Trades						
Active	**Entry Date**	**Opened**	**Latest**	**Stop**	**Target**	**Performance**
1. Long 3y France, Spain, Italy vs OIS (equally weighted)	10-Apr-26	0.33	0.29	0.32	0.23	+4 bps
2. Long 3y SOFR swap spread	17-Apr-26	-0.226	-0.208	-0.255	-0.180	+2 bps
3. 2s5s CAD steepeners	24-Apr-26	0.20	0.23	0.10	0.35	+3 bps
4. Long 5y5y EUR OIS - HICP	01-May-26	1.09	1.10	1.22	0.88	-1 bps
5. Long 5y Receivers on 3m 2s5s10s Receiver Fly (bp running)	08-May-26	0.01	-0.01	-0.05	0.10	-2 bps
Closed	**Entry Date**	**Closed**	**Performance**			
1. SFRZ6/Z7 steepeners	21-Nov-25	14-Jan-26	+6bps			
2. Long 10y Gilts on ASW	21-Nov-25	30-Jan-26	+12 bps			
3. Long USD 3m2y A-25 receiver vs short 3m10y A-25 receiver (return in bp running)	07-Nov-25	09-Feb-26	-2 bps			
4. 2s5s CORRA steepener	16-Jan-26	13-Feb-26	+0 bps			
5. Receive AUD 5y5y IRS vs pay NZD 5y5y	28-Nov-25	18-Feb-26	+0 bps			
6. Long 20s on 10s20s30s weighted SOFR fly (weights 0.6x : 2x : 1.4x)	01-Aug-25	02-Mar-26	+6 bps			
7. Long SFIU6	30-Jan-26	03-Mar-26	+7 bps			
8. Long 10y Gilts vs Bunds	07-Nov-25	09-Mar-26	+4 bps			
9. 3m10y A+5/A+20/A+27.5 payer ladders (bp running)	20-Feb-26	23-Mar-26	-5 bps			
10. Long 10y NOK vs SEK	13-Feb-26	25-Mar-26	+20 bps			
11. Long EU 30y on the fly against 30y Austria and Spain	27-Feb-26	10-Apr-26	-5 bps			
12. Long USD 3m 2s10s A+10/A+25 curve cap spread (bp of notional)	23-Jan-26	15-Apr-26	-2 bps			
13. USD 3m3y A-5/A-40 receiver spreads	13-Mar-26	30-Apr-26	-7 bps			
14. Long 10y Inflation Swap vs 0.25x Receive 10y SOFR	27-Mar-26	07-May-26	+15 bps			
15. Pay 10s on 5s10s30s SOFR fly	09-Jan-26	08-May-26	-1 bps			

Note: Potential profit/loss estimates are given as per unit of duration risk, through yesterday's close.

Source: Goldman Sachs Global Investment Research

Global Interest Rates Strategy

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