

2026 GLOBAL FX OUTLOOK

Different Dollar Downside



- Our central view remains that less US outperformance than before should lead to a less-strong Dollar over time. We first formulated that view in April 2025 as we judged that the net effect of policy changes in the US and abroad was likely to narrow the spread between US performance and the rest of the world and diminish demand for US assets. While the Dollar moved substantially lower over subsequent months, it started to move sideways as policy changes moderated somewhat and the US economy proved to be surprisingly resilient. We expect a similar push and pull on the Dollar in 2026. Ultimately, we expect a shallower Dollar descent in 2026, led by more pro-cyclical currencies.

Kamakshya Trivedi
+44(20)7051-4005 |
kamakshya.trivedi@gs.com
Goldman Sachs International

Michael Cahill
+44(20)7552-8314 |
michael.e.cahill@gs.com
Goldman Sachs International

Danny Suwanapruti
+65-6889-1987 |
danny.suwanapruti@gs.com
Goldman Sachs (Singapore) Pte

Teresa Alves
+44(20)7051-7566 |
teresa.alves@gs.com
Goldman Sachs International

Karen Reichgott Fishman
+1(212)855-6006 |
karen.fishman@gs.com
Goldman Sachs & Co. LLC

Stuart Jenkins
+44(20)7051-4700 |
stuart.jenkins@gs.com
Goldman Sachs International

Isabella Rosenberg
+1(212)357-7628 |
isabella.rosenberg@gs.com
Goldman Sachs & Co. LLC

Victor Engel
+44(20)7051-3862 |
victor.engel@gs.com
Goldman Sachs International

Lexi Kanter
+1(212)855-9701 |
alexandra.kanter@gs.com
Goldman Sachs & Co. LLC

Different Dollar Downside

USD: A Shallow Descent

The World Smiles With You

Our central view remains that less US outperformance than before should lead to a less-strong Dollar over time. We first formulated that view in April 2025 as we judged that the net effect of policy changes in the US and abroad was likely to narrow the spread between US performance and the rest of the world and diminish demand for US assets. While the Dollar moved substantially lower over subsequent months, it started to move sideways as policy changes moderated somewhat and the US economy proved to be surprisingly resilient.

We expect a similar push and pull on the Dollar in 2026. On the one hand, the sturdy global growth and more balanced returns that we expect should weigh on the Dollar given its usually negative correlation with risk sentiment. This is especially true considering that the Dollar enters 2026 still highly valued, which we think reflects the strong return on US assets for much of the last decade, but is no longer justified under the more balanced global conditions we expect going forward. On the other hand, and as we discuss in more detail below, our economists are well above consensus on US growth for the coming year, which should at least keep a floor

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

WV

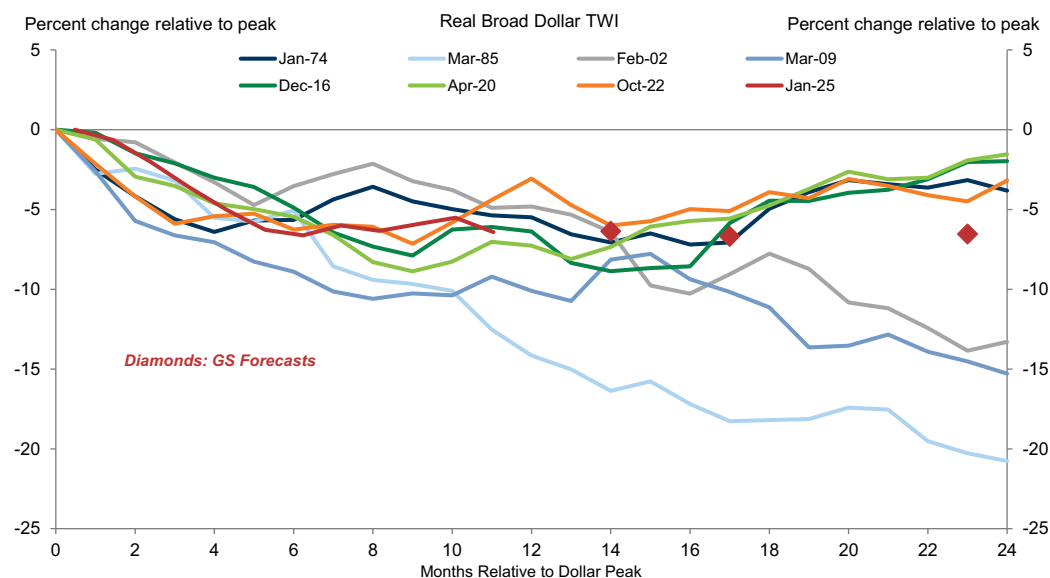
并购家 免费行业报告网

IPOIPO.CN 每日更新 不用注册会员 无广告 永久免费

under the Dollar and occasionally provide some boost if US returns start to outshine others again.

However, relative to 2025, when European currencies and EM carry led the way, we expect a different mix of Dollar downside in 2026. This is completely normal for FX cycles; Dollar peaks are always followed by a period of relatively rapid adjustments, but thereafter often become much shallower unless they coincide with an increase in spare capacity and much easier monetary policy (Exhibit 1).

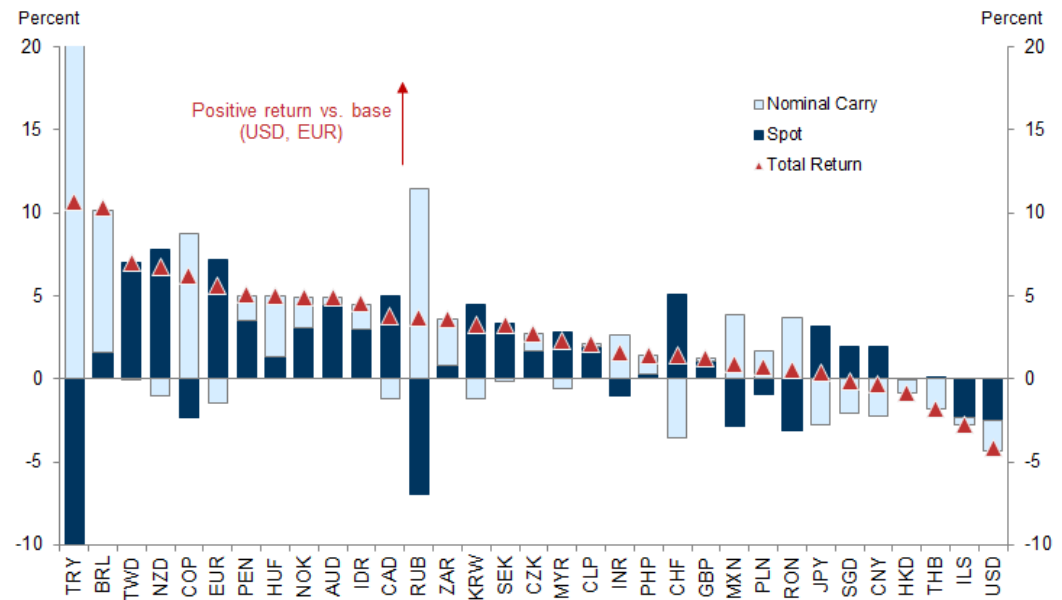
Exhibit 1: Dollar peaks are always followed by a period of relatively rapid adjustments, but thereafter often become much shallower



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

Against the backdrop of sturdy growth and steady prices, we expect more of a pro-cyclical tilt to global currency returns (Exhibit 2), which are likely to be more constrained than last year in an environment of less differentiation and less disruptive policy changes. We have therefore upgraded our view for many of the small, open G10 economies that tend to perform well when risk sentiment is strong. While carry considerations still form a key part of our total return expectations—we look for more BRL outperformance ahead—we think currencies like ZAR that offer exposure to the cyclical beta together with some carry buffer should receive greater attention.

Exhibit 2: Against the backdrop of sturdy growth and steady prices, we expect more of a pro-cyclical tilt to global currency returns



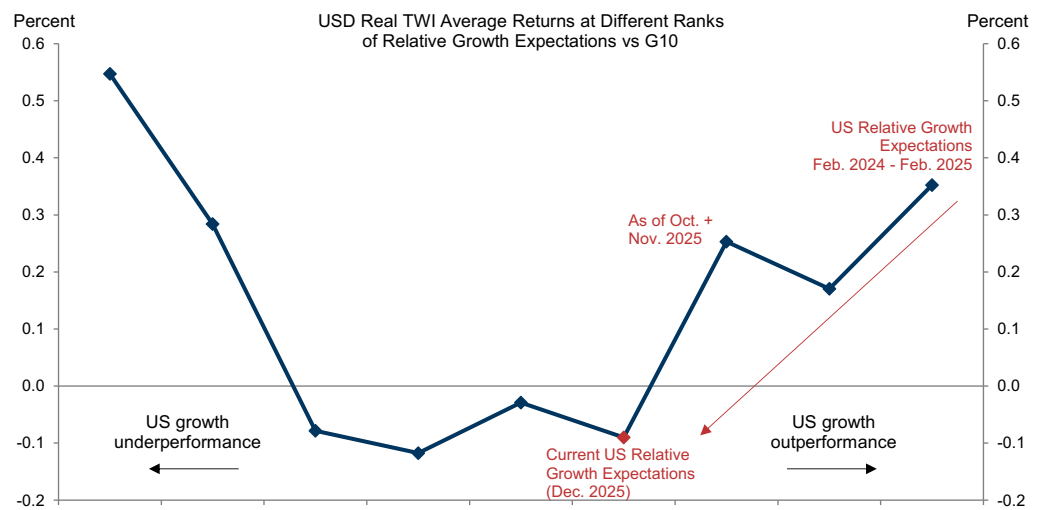
Note: All currencies expressed vs USD, except CZK, HUF, NOK, PLN, RON, and SEK

Source: Bloomberg, Goldman Sachs Global Investment Research

Too Hot to Handle?

In the familiar “Dollar Smile” framework, the Dollar tends to rise when US growth either outperforms (the “right tail”) or severely underperforms (the “left tail”). After spending almost all of 2024 at the top of the heap, US growth expectations were firmly in the middle of the pack—the “trough” of the Dollar smile—for much of 2025 ([Exhibit 3](#)).

Exhibit 3: US growth expectations were firmly in the middle of the pack—the “trough” of the Dollar smile—for much of 2025



Note: Growth measured using Consensus Economics 1y ahead GDP expectations. Monthly returns. Smaller rank denotes US outperformance/larger rank denotes US underperformance. Sample: 1995-Present. First bucket is an average between the last two buckets of US growth underperformance due to a limited number of observations.

Source: Consensus Economics, Goldman Sachs Global Investment Research, Bloomberg

This simple framework coincides well with the Dollar's performance in 2025, and it also helps illustrate what we see as the key upside risk to the Dollar. While expectations for US growth are still near the trough right now, our economists are well above consensus on US growth and it would not be too far from our baseline for US performance to be sufficiently strong to keep the Dollar's high valuation in place. There is some risk that this outcome would lead to larger moves in FX than other asset classes after the Dollar's sharp decline in 2025.

US Exceptionalism—Diminished or Finished?

While our baseline macro/market forecasts are consistent with a small dollar depreciation, a larger move is certainly possible. The Dollar remains ~15% overvalued even after the sharp fall in 2025, so a shift towards greater concern around the US labor market—from “jobless growth” to “Sahm rule/recession” risks—that forces the Fed to cut more deeply should see sharper depreciation, particularly versus the highly undervalued Yen. Deeper rate cuts could also come about without recession concerns if a reshaped Fed pushes further toward the bottom end of the range in the FOMC's dots. Markets have generally relaxed about institutional risks, but deeper USD downside tails, where optionality looks quite cheap again, could be in play if those institutional risks resurface and real policy rates in the US drop more abruptly than in the rest of the world.

A different type of downside risk for the Dollar could come from a sharper derating in US tech exceptionalism. Demand for US equity exposure has been increasingly prominent in funding the US current account deficit and supporting the Dollar's rich valuation in recent years. Even though we expect US productivity to benefit from the spread of AI in the years ahead, there is still the question about whether those gains remain confined to the US or broaden out globally, and whether the returns on capital invested meet the high expectations reflected in lofty US tech equity valuations. Against that context, a “DeepSeek 2.0” moment may pose a significant challenge to the Dollar, beyond our baseline forecasts.

More Cycling than Frightening

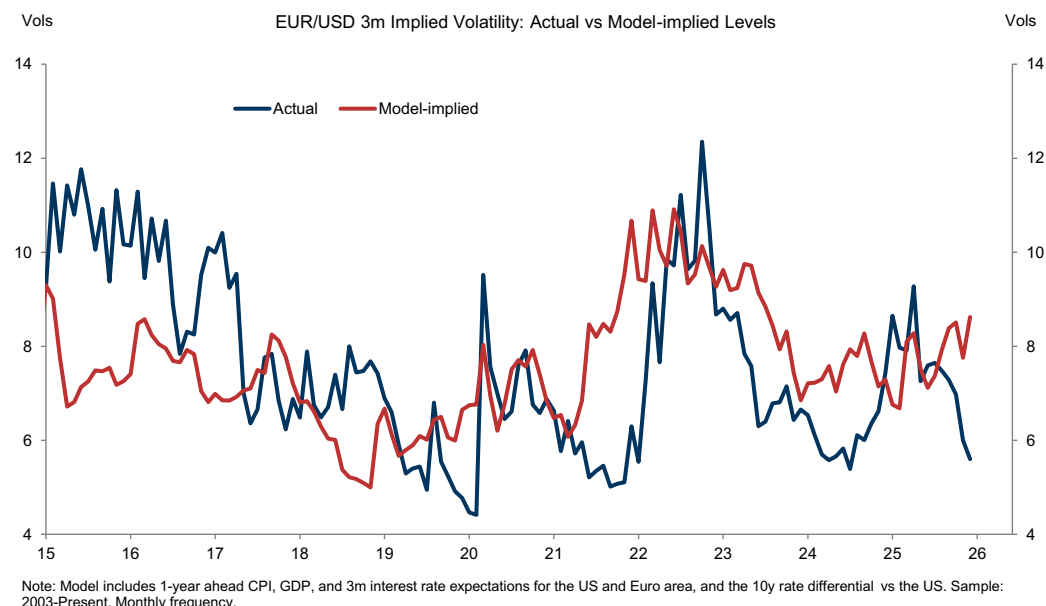
While we see a number of familiar downside risks to the Dollar, we think it is still important to distinguish between Dollar depreciation and Dollar dominance. Our forecast for further, modest Dollar depreciation is consistent with more balanced global growth and an overvalued, overperforming, safe-haven currency. We have seen only limited evidence of de-Dollarization or displacement of the Dollar's dominant international role in recent years and do not expect this to contribute to the Dollar's performance on a day-to-day, or even year-to-year, basis. Similarly, we think investors often focus too much on the potential for repatriation or “flows” to drive FX performance. Instead, in our view, the question is whether the Dollar will need to continue to adjust lower in order to attract capital to fund the US current account deficit. We use these flows and cross-asset correlations to help gauge changes in that demand from foreigners.

Lower but not That Low

After a year in which FX was often at the center of macro market discussions, it is natural to see a somewhat narrower distribution of outcomes in the year ahead. Global trade and fiscal policy is unlikely to face the same sort of disruption again. However, we see an important distinction between comparing to last year and comparing to what is priced

into markets now ([Exhibit 4](#)). Policy uncertainty is still elevated, and late-cycle dynamics in still-imbalanced FX markets pose a number of risks that we are confident will provide opportunities in FX yet again.

Exhibit 4: Our macro vol models indicated that EUR/USD implied vol is currently underpricing macro uncertainty



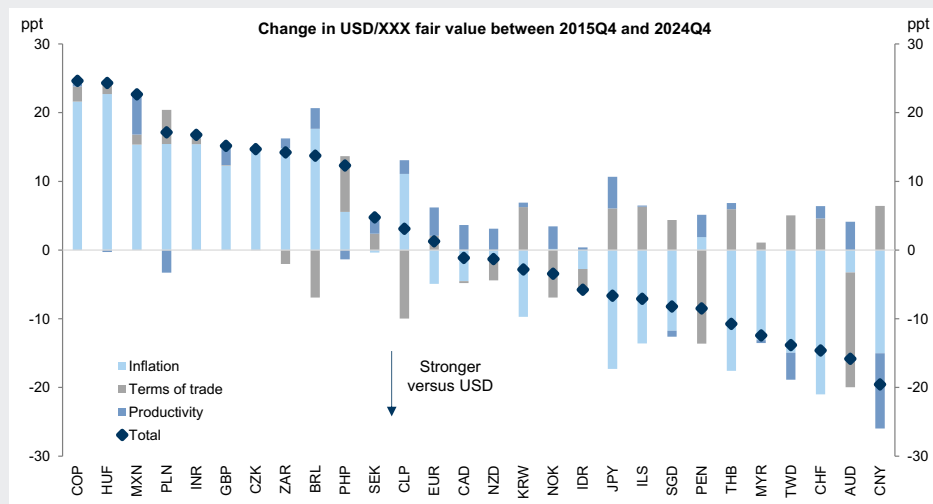
Source: Goldman Sachs Global Investment Research, Consensus Economics, Goldman Sachs FICC and Equities

Box: FX in 2035—Finding Fair and Getting There

We recently introduced long-term forecasts for global currencies to complement our economists' long-term projections and aid in structural investment decisions. Our new forecasts for 2035 include EUR/USD at 1.21, USD/JPY at 100, GBP/USD at 1.24, and USD/CNY at 5.17.

Long-term FX forecasting exercises focus on the mean-reverting properties of real exchange rates, with some adjustments for structural changes over time. Academic consensus shows this approach outperforms a “random walk” and refutes the common misconception that FX forecasting is a futile exercise. GSDEER has been the workhorse model for assessing FX “fair value” at Goldman Sachs for the last 30 years, and we lean on it again to project the next 10. Overall, the trends in fair values over the next 10 years are consistent with those over the last 10, albeit slightly smaller in magnitude. The fair valuation anchor for currencies of economies that tend to target higher levels of inflation such as INR, MXN, ZAR and BRL should continue to drift weaker (that is, higher in USD/XXX terms). On the other side, lower inflation in Switzerland, China and many other Asian economies argues for nominal currency appreciation. ([Exhibit 5](#))

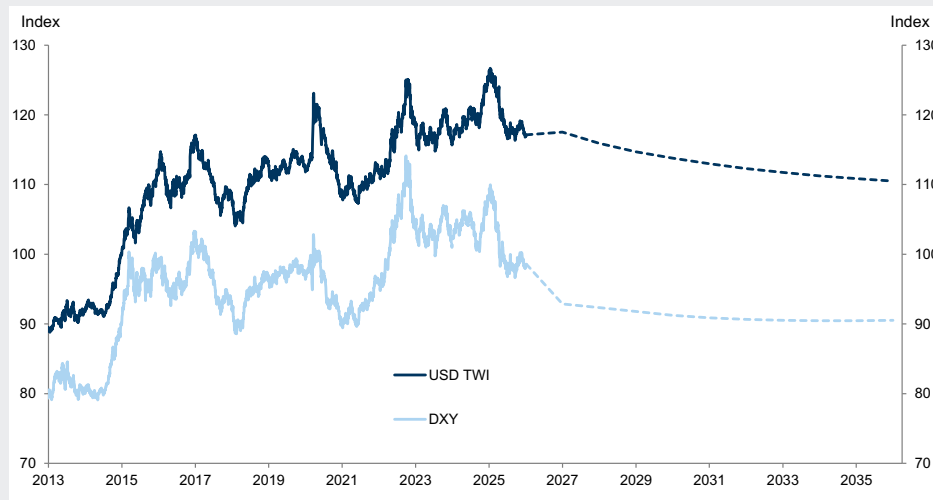
Exhibit 5: Changes in fair values over the last 10 years have mostly been driven by the inflation component, with larger terms of trade contributions in commodity-exporter currencies



All inputs are computed as a differential to the US

Source: Goldman Sachs Global Investment Research

We take our 12-month forecasts as the cyclical “starting point,” and from 2027 onwards we embed an annual 20% convergence of exchange rates to the GSDEER fair value in real terms (except for CNY and CZK where we assume a 10% rate to account for tighter currency management). At a high level, our forecasts point to continued Dollar depreciation ([Exhibit 6](#)) which is consistent with its starting point of around 15% overvaluation in our GSDEER framework. That said, the Dollar has sustained a high valuation for much of the last decade, and it is possible that fresh, AI-led productivity gains will help it defy the odds once again. Most of our strongest total return forecasts are in EM, which is consistent with harvesting long-term real carry premia and converging productivity. In particular, our new forecasts show very strong total return potential in many EM currencies that have historically struggled with inflation control, such as Brazil and South Africa. While new bouts of policy pressures are always a risk, these strong forecasts are consistent with academic findings that markets tend to overcompensate for drawdown risks in EM currencies, especially after economic conditions have already converged substantially.

Exhibit 6: Our forecasts point to continued Dollar depreciation

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

EUR: Look How Far EU've Come

Finding Fair, Almost There

After leading the way in 2025, the Euro enters 2026 much closer to “fair” against the Dollar than it has been in some time (and it is now *overvalued* on a broad basis; [Exhibit 7](#)). Partly as a result, we think it is unlikely that the currency will be at the vanguard of strong performers versus the Dollar again this year. But even beyond the valuation argument, the factors that led the currency much stronger last year seem unlikely to repeat. The Euro’s move started with much larger fiscal spending commitments than had been previously expected. This was followed by the broad Dollar decline and an apparent shift in investor demand leading to shifting hedge ratios in the region. We think this combination goes a long way to explaining the currency’s outperformance relative to rate differentials.

Exhibit 7: After leading the way in 2025, the Euro enters 2026 much closer to “fair” against the Dollar



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

While we do not expect to see EUR/USD outperform to the same degree again, those drivers provide the blueprint for why we think the currency can continue to appreciate somewhat further. Our economists expect that increased fiscal spending will deliver a cyclical upswing to the beleaguered German economy, and there are some early signs in recent hard data releases that this is starting to materialize. Partly for this reason, our equity strategists continue to emphasize the appeal of more geographical diversification ahead. Previous periods of more balanced global market returns have helped benefit the Euro given its exposure to the global cycle and persistent portfolio outflows over the last decade.

Along for the Ride

However, our rationale for EUR/USD to keep moving towards 1.25 continues to rest mostly on our Dollar view. The Euro has been strongly correlated with the broad Dollar over the last year, and we expect that to continue ([Exhibit 8](#)). Our FX outlook is mostly predicated on the view that less US outperformance than before should lead to a weaker Dollar over time, and the Euro should participate in that. This is in part because European portfolio flows have been a key component of the demand for US assets that have supported the strong Dollar over the last decade. In addition, while the Euro is far from the most cyclical currency, it still tends to be positively correlated with risk sentiment over time (though it also has some safe-haven properties) and should stand to benefit somewhat from the sturdy growth backdrop we expect.

Exhibit 8: The Euro has been strongly correlated with the broad Dollar over the last year, and we expect that to continue

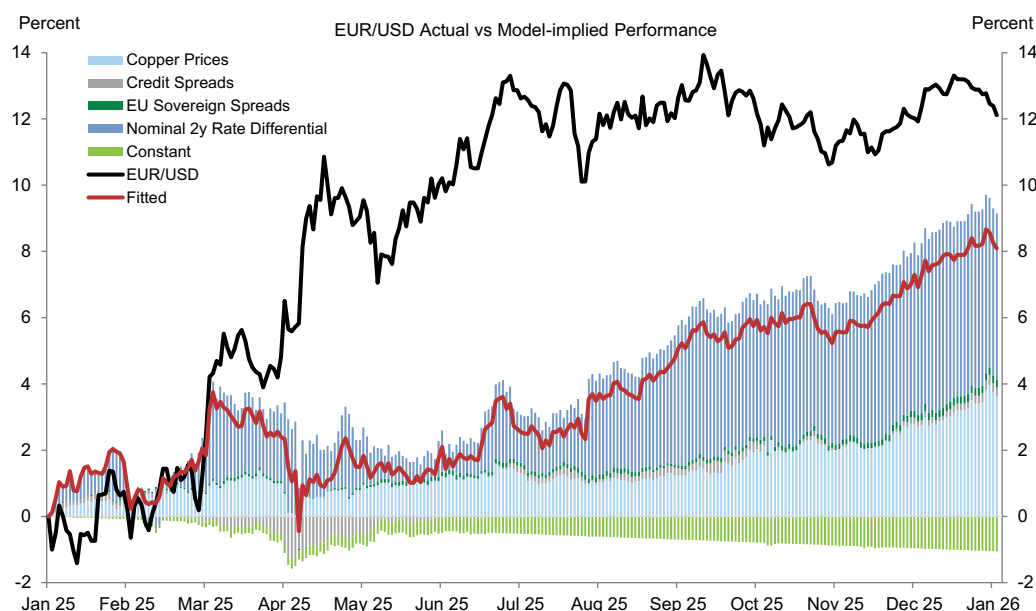


Source: Bloomberg, Goldman Sachs Global Investment Research

Don't Look Down

In our view, the key downside risk to the Euro stems from its outperformance relative to other asset classes in 2025 ([Exhibit 9](#)). As we discussed above, we think this can be explained by macro factors, but it still leaves the currency somewhat vulnerable to a reversal in sentiment. This would not be without precedent; the last time the Euro ran ahead of rate differentials like this was in 2017, when expectations for better Euro area growth outturns led to significant, unhedged portfolio inflows and a currency move that outpaced our GSBEER model by a wide margin. However, when stronger growth outturns failed to materialize, the currency depreciated steadily in 2018-2019 to re-link with cyclical valuations. We are conscious that recently markets have been revising relative growth expectations between the US and Euro area wider again, and we see a clear risk that, after re-running the “2017 playbook” in EUR/USD this year, it might be time to turn the page.

Exhibit 9: In our view, the key downside risk to the Euro stems from its outperformance relative to other asset classes in 2025



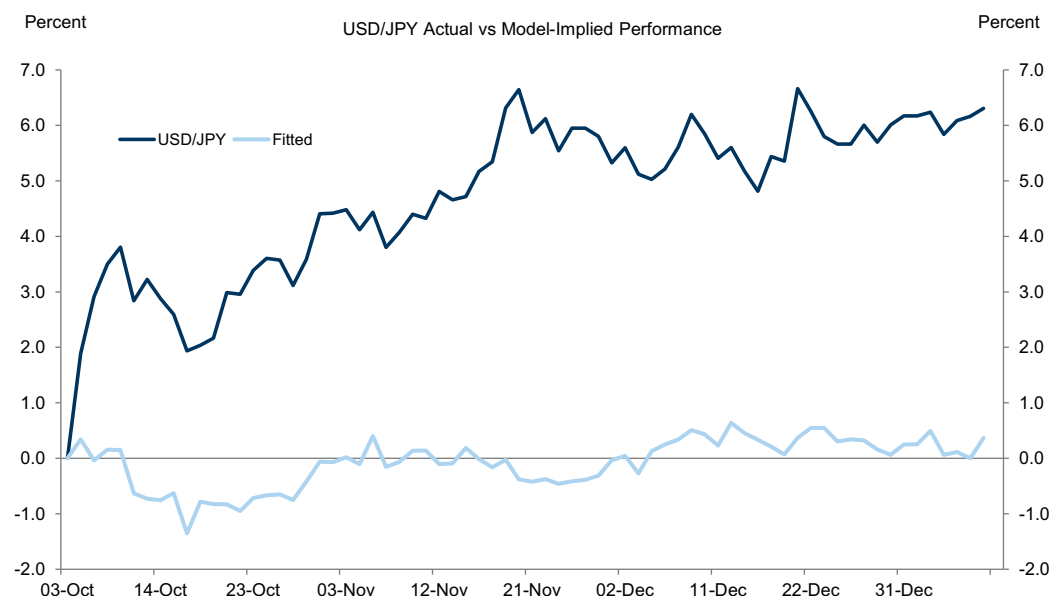
Source: Goldman Sachs Global Investment Research

There is also some risk stemming from Chinese overcapacity. Our economists estimate that Euro area economies are some of the most vulnerable to a “China Shock 2.0”. However, we think this is more of a structural risk and our more upbeat cyclical view for 2026 should have more of an influence on 2026 FX returns.

JPY: A Dubious Funder

We expect the Japanese Yen to strengthen modestly over the course of 2026, consistent with some further compression in rate differentials and roughly in line with the forwards. That said, we see scope for higher volatility along the way, including room for further tactical weakness if US growth picks up in Q1 and the odds of near-term Fed cuts decline. Our baseline macro forecasts of sturdy global growth, further disinflation, and limited monetary policy divergence that’s largely consistent with pricing—though with an even more procyclical mix on growth (higher) and inflation (lower)—often has mixed implications for the Yen. But two-way risks around both the fiscal outlook in Japan as well as the global macro backdrop leave plenty of scope for a sharp JPY response if the current baseline gets challenged. On the fiscal side, the risk premium priced in following Takaichi’s victory in early October has broadly persisted, proxied by the gap between USD/JPY spot and the level implied by our BEER model since then ([Exhibit 10](#)). That leaves room for an unwind if fears of more permanent fiscal changes do not materialize. However, larger fiscal stimulus alongside greater limitations on the BoJ could easily push that premium even higher, and our economists see spending risks as skewed to the upside. PM Takaichi’s reported consideration of dissolving the Lower House to trigger an early election, likely in February, should further raise those concerns on the margin.

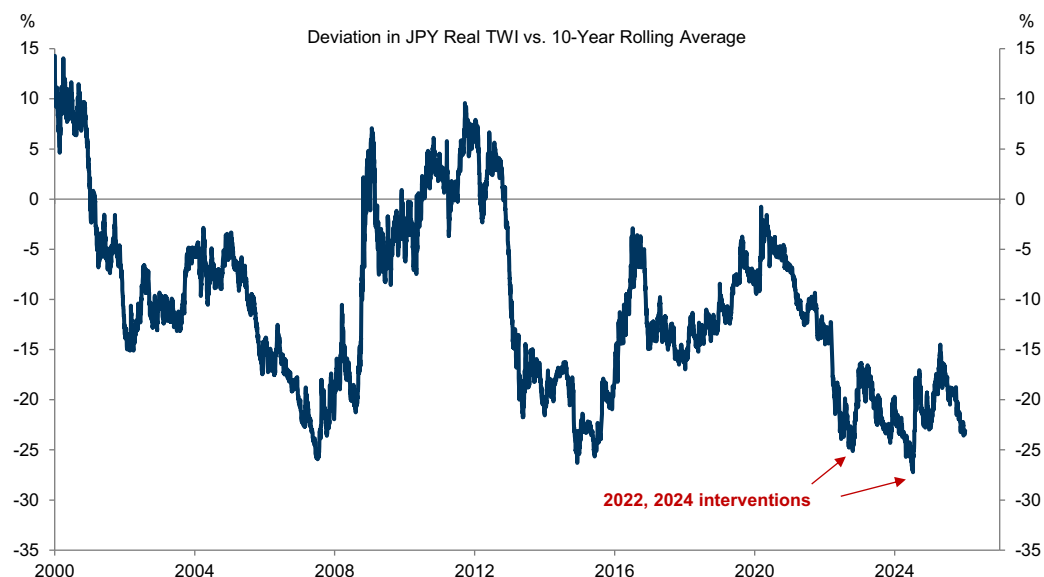
Exhibit 10: The risk premium priced in following Takaichi's victory in early October has broadly persisted, proxied by the gap between USD/JPY spot and the level implied by our BEER model



Source: Bloomberg, Goldman Sachs Global Investment Research

The risks around the macro are also two sided. On the one hand, the Yen could appreciate more significantly than we expect if any of the lingering downside risks materialize around the US labor market, Fed independence, or AI valuations. A much narrower rate differential could drive more meaningful repatriation, reinforcing JPY strength in that backdrop, though we do not anticipate portfolio flows will be the primary driver of JPY in 2026. The risk of direct FX intervention has also risen in recent weeks, as policymakers appear to be more actively debating the urgency to push back on Yen weakness. We continue to believe that the odds of direct operations should rise as USD/JPY rallies, and (temporarily) successful action tends to follow monetary policy decisions that lean in the same direction (e.g., a dovish Fed and a hawkish BoJ). But the Yen remains at less stretched levels on a real trade-weighted basis than just before the last few rounds of intervention in 2022 and 2024 ([Exhibit 11](#)). And we have repeatedly seen that intervention fails to change the direction of travel when the broader macro justifies the weakness, as it does today. For both reasons, there may be continued hesitancy to deploy that tool so soon but it should remain a source of caution for tactical JPY shorts. On the other hand, any signs of re-tightening in the labor market alongside a reacceleration in growth could push the Fed to pivot towards hikes—the main risk to our bearish Dollar view, assuming the rest of the world also fails to keep pace. Taken together, the global macro outlook should dominate, but evolving fiscal expectations should nevertheless remain a key driver in 2026. We think the risk of higher volatility in both directions should favor using the Yen as a hedge (i.e., short USD/JPY) in a procyclical portfolio rather than to fund procyclical or carry positions (i.e., long AUD/JPY or long ZAR/JPY, for example). One exception is EUR; we continue to prefer being long EUR/JPY as a more defensive expression that should still benefit in a positive macro backdrop with relatively less vulnerability to a risk-off shock. CHF/JPY should also see further gains if geopolitical risks continue to rise.

Exhibit 11: The Yen remains at less stretched levels on a real trade-weighted basis than just before the last few rounds of intervention in 2022 and 2024



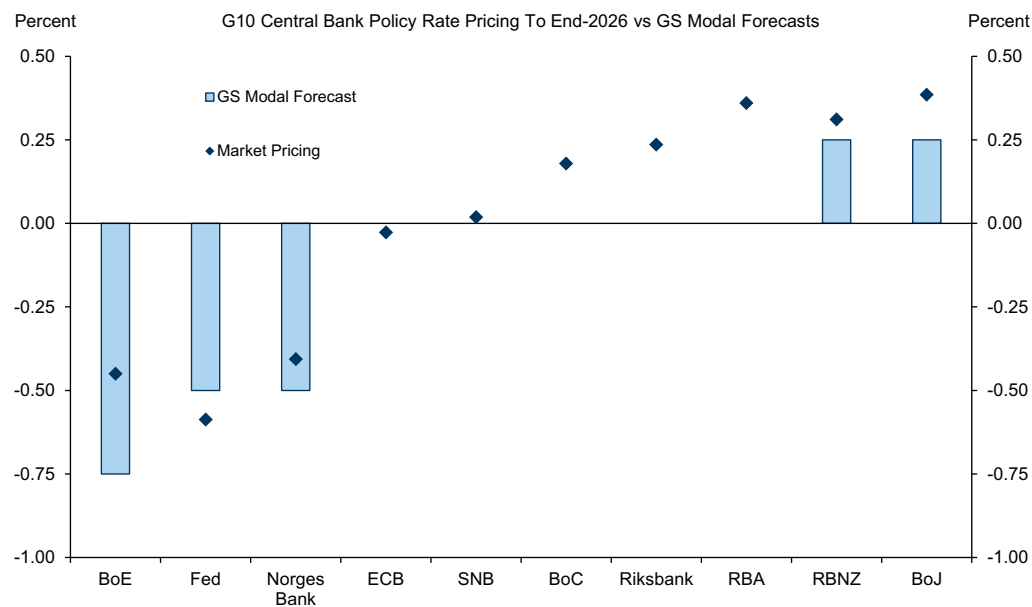
Source: Bloomberg, Goldman Sachs Global Investment Research

GBP: Europe's Laggard

Sterling was a clear underperformer relative to its European peers for much of 2025, and we expect that trend to continue in 2026. But while much of the Sterling price action throughout 2025 was driven by the ebb and flow of UK fiscal risk premium, we think the stage is set for a much more 'conventional' form of underperformance in 2026 driven by data, policy, and valuation.

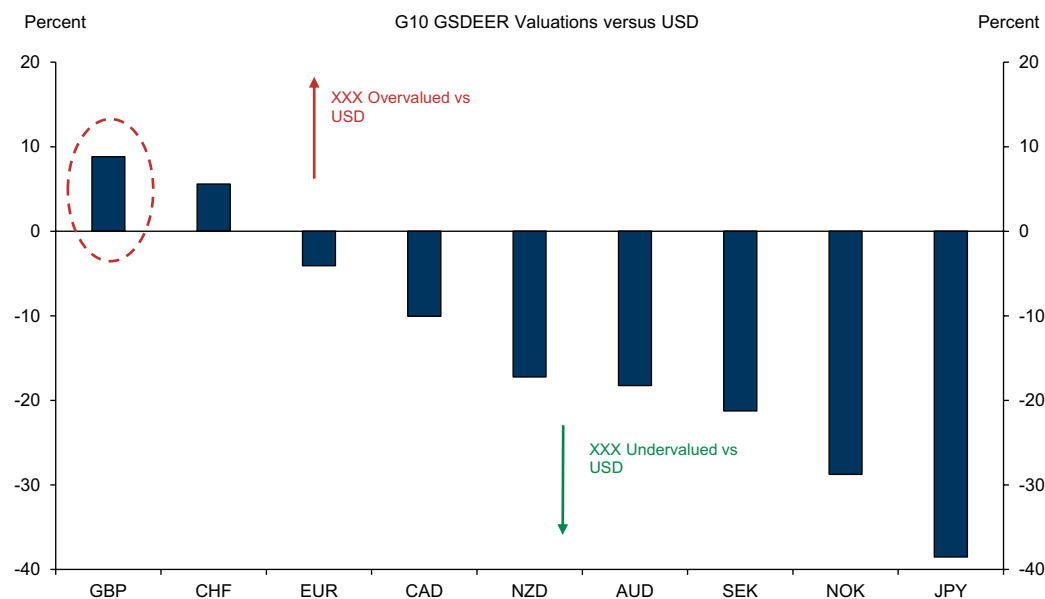
We ultimately expect fiscal premium in Sterling to stay contained next year, but fiscal consolidation measures from the UK government are an important ingredient to achieving that and entail their own challenges to UK macro going forward. Fiscal restraint in the UK differentiates it from its G10 European peers, who generally have much more space to ease, and comes at a time of an already challenging period for the domestic cyclical outlook in the UK. The softening trend in recent domestic data stands in contrast to improvements in the Euro area, and there are meaningful downside risks to the forward UK cyclical outlook as well. A Sahm rule indicator—while not historically a reliable predictor of recessions—remains elevated in the UK, particularly relative to G10 peers. A slowing UK labour market and deceleration in inflation and wages still have more room to run as a negative for Sterling through more aggressive BoE easing than markets are pricing. Our economists' modal expectation is for three further 25bp BoE cuts by year-end, with our global forecasts implying greater downside risks to market pricing of Bank Rate than anywhere else in G10 over that period ([Exhibit 12](#)).

Exhibit 12: Our economists’ modal forecasts imply clearer downside risks to BoE policy rate pricing than for other G10 central banks



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

Set against these constraints from the domestic macro, we expect limited help for Sterling from abroad. The currency is less levered than most of its regional peers to shifts in European growth—where we remain more optimistic on upside outcomes this year—and there is no strong valuation case for the currency to appreciate. While other European currencies still have some ground to cover to close out Dollar strength, this is not the case for Sterling. Mostly due to higher inflation in the UK, Sterling is the most structurally overvalued G10 currency under our GSDEER model ([Exhibit 13](#)). We see the range of aforementioned domestic and regional cyclical drivers as being underpinned by this valuation argument, which is particularly clear versus the likes of NOK and SEK in Europe.

Exhibit 13: Sterling remains structurally overvalued relative to other G10 currencies

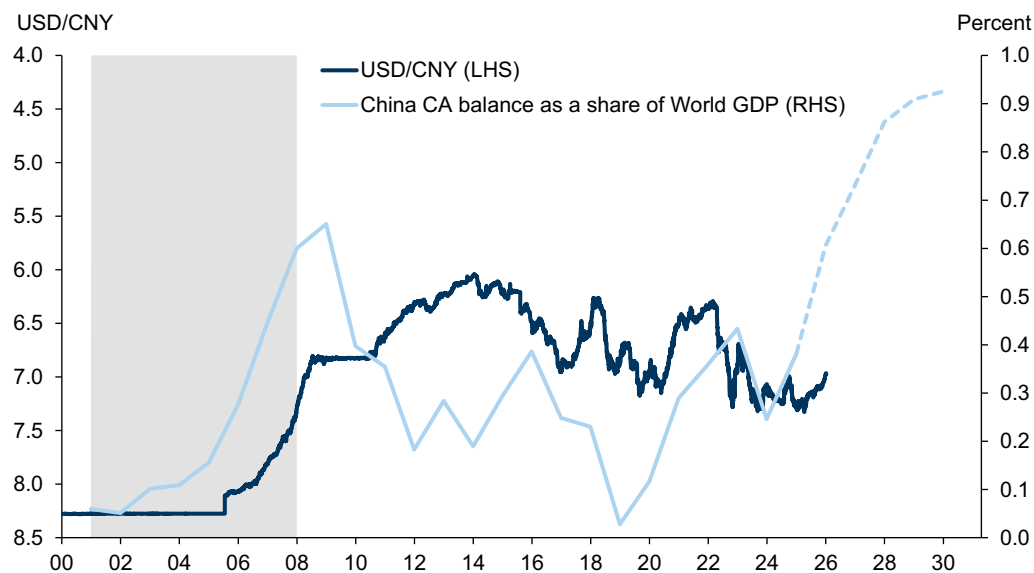
Source: Goldman Sachs Global Investment Research

All told, we expect the Sterling to return to its trend of steady underperformance, and forecast EUR/GBP to rise to 0.89, 0.90, and 0.92 in 3, 6, and 12 months. Meanwhile, we continue to think Sterling underperformance is best targeted on European crosses, with GBP/USD much more likely to be a function of EUR/USD and the evolution of the broad Dollar more generally. Our Sterling underperformance balances out to an extent with our continued bearish thesis for the Dollar, and we forecast only a modest drift higher in GBP/USD to 1.35, 1.36, and 1.36 over the same horizons.

CNY: How Far, How Fast?

CNY is one of the most undervalued currencies on our currency fair value estimates. Since the Covid pandemic in particular, China's continued investment in manufacturing capacity and low and deflating prices compared with the inflation surge in the rest of the world have together resulted in an exceptionally competitive real exchange rate. While concerns persist around US tariff policy and potential payback effects from front-loading and trade rerouting, our economists expect real export growth to expand by 5-6%yoy in coming years. This level of export growth and ongoing market-share gains in global trade demonstrate the competitiveness of China's currency. As we have been highlighting, the degree of CNY undervaluation is now comparable to the period of the "China shock" in the mid-2000s, which was followed by large currency appreciation (Exhibit 14); and our current account forecast for the years ahead is approaching similar levels (as a % of global GDP).

Exhibit 14: The last time China's external sector was similarly dominant (at the time of the first "China shock"), it was followed by a large currency appreciation



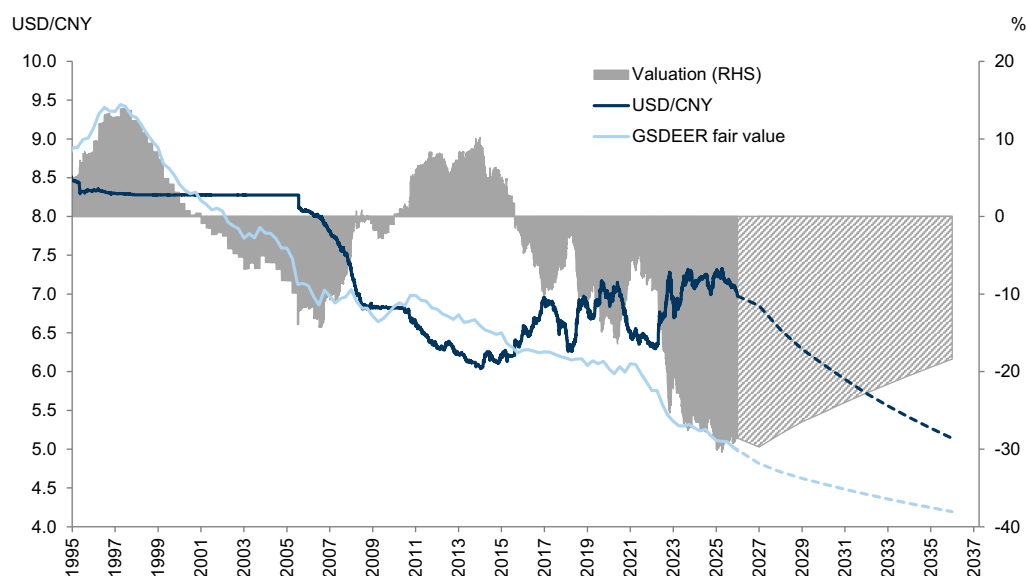
Dashed series reflects GS projections.

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

We have already seen a shift towards CNY appreciation this year, with the USD/CNY fix gradually but steadily stronger since “Liberation day”. We expect that move to extend in the year ahead, but the two big questions for investors are how far and how fast? Our USD/CNY forecast of 6.85 in 12m is stronger than consensus forecasts, but after the sharp move in December forward pricing has caught up to that, so a relatively gradual move from here would just about match the negative carry embedded in short USD/CNY positions. We certainly see scope for a larger move. The starting level of undervaluation is significant, and we think a much larger move is likely over the next decade, as per our 10-year-ahead forecasts (Exhibit 15). Besides, as China's exports continue to grow, allowing some meaningful currency appreciation back towards fair value could be one way to stave off the likely protectionist pressures from other jurisdictions.

But we remain skeptical that such a move would occur quickly. Amid strong export performance, the macroeconomy remains highly bifurcated, with weak domestic demand, so policymakers will likely want to continue to lean on the external side to generate growth and jobs for a while longer. And on the market side the Renminbi is a heavily managed currency and policy authorities appear in no mood to relinquish the tight currency management regime of recent years. So, long CNY positions will likely be most attractive when the market grows skeptical after a flatter period, or will need to be coupled with other lower-carry currencies.

Exhibit 15: CNY remains deeply undervalued on GSDEER, and we expect the USD/CNY fair value to continue to trend lower over time



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

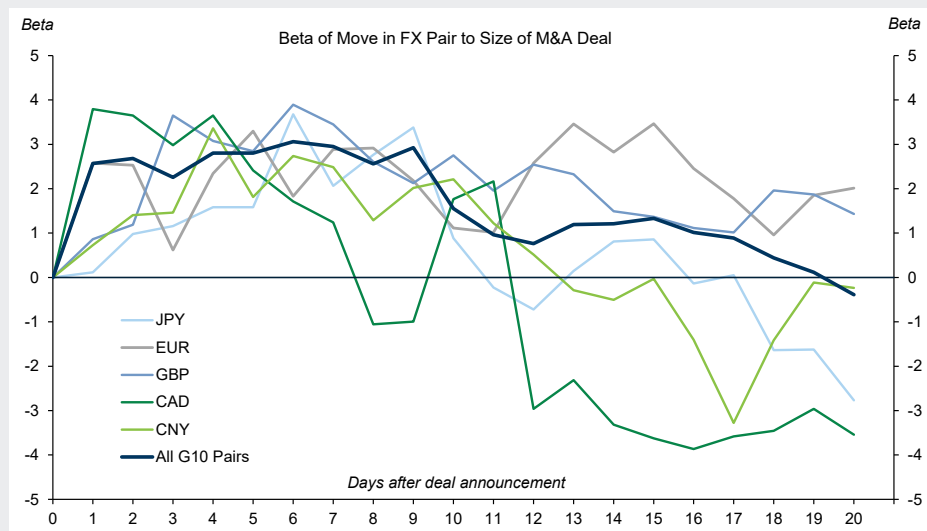
Box: The Deal with Currencies—Cross-Border M&A and FX Markets

Cross-border M&A deals are an important driver of currency markets, both because deals represent a substantial portion of equity FDI and also because they can require a large and fast directional FX flow that leaves an imprint on markets. In [recent work](#), we calibrated the sensitivity of FX markets to cross-border M&A flows and highlighted a series of key takeaways for both investors and corporates in how they assess the relationship between deals and currencies.

Using Bloomberg data on cross-border M&A deals valued at \$100mn or higher, we measured the response of the target firm's local currency versus the acquiring firm's local currency, expressing the move as an excess return versus the forwards over various horizons.¹

The beta of the move in a currency pair to the size of a deal (measured as the basis point excess return in the exchange rate per \$1bn in deal size) is positive and statistically significant in Dollar pairs against EUR, GBP, JPY, CNY, and CAD. This beta of a ~2.8bp move per \$1bn peaks around 5-7 days after the deal is announced, before trailing off to zero after around two weeks ([Exhibit 16](#)).

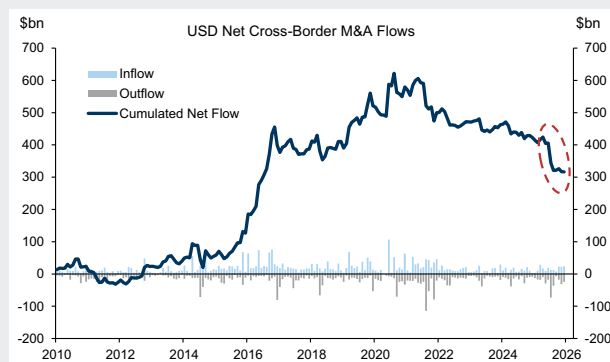
Exhibit 16: We find the FX impulse from M&A deals tends to peak around 5-7 days after the deal announcement



Source: Bloomberg, Goldman Sachs Global Investment Research

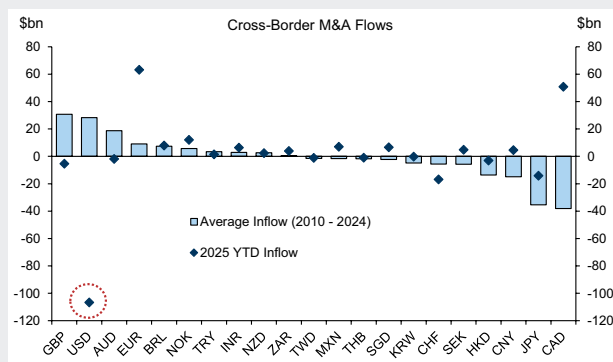
Our estimates of the FX impact from deal announcements underscore the importance of tracking net M&A flows—both for their short-term impacts and also because there may exist more gradual, harder to observe growth-driven boosts to the target currency from an increase in FDI. Data for 2025 points to sharp net US outflows (Exhibit 17)—particularly in May, July, and August—with Canada and Euro area the clearest beneficiaries of net inflows. We have also argued previously that expressing these flows *relative* to their historical trend should have the clearer implications for FX markets, as opposed to purely the absolute direction and pace of flows. In that context it is notable to us that 2025's data for the US implies a reversal of the net M&A inflows seen over the 2010-2022 period (Exhibit 18) and should be additive to the Dollar-negative consequences from US portfolio outflows earlier in the year.

Exhibit 17: The US saw clear net cross-border M&A outflows in 2025



Source: Bloomberg, Goldman Sachs Global Investment Research

Exhibit 18: EUR and CAD were two of the clearest beneficiaries of net M&A inflows in 2025



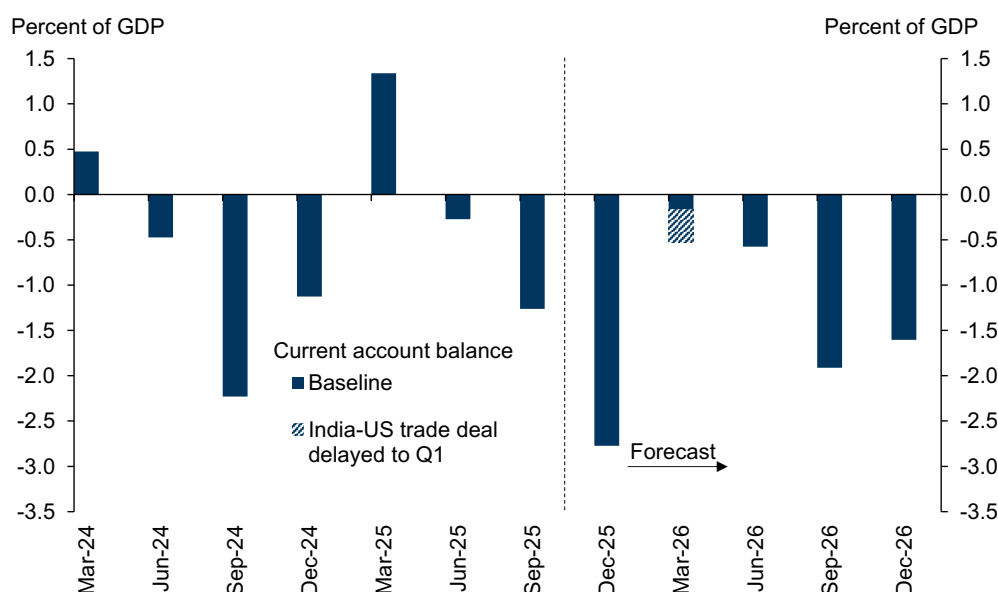
Source: Bloomberg, Goldman Sachs Global Investment Research

¹We exclude deals that involve a pegged currency or where the target and acquirer nation use the same currency, and we only include deals recorded as using cash payment, rather than equity or debt swaps.

INR: From Last to Laggard

2025 was a dismal year for the Rupee, which finished last among major EM currencies, in an otherwise banner EM year. The underperformance, while unexpected, is understandable. India started the year perceived as a geopolitical “sweet spot” amid US-China trade and political disagreements, but as that relationship thawed, India found itself at the receiving end of additional US tariffs on account of Russian oil imports, followed by steep increase in the cost of issuing H1B visas, where Indian software companies are predominant. Service sector and software export revenues have been a persistent tailwind for India’s balance of payments, just as oil imports have been a perennial headwind, so both sides of that equation faced unfavourable impulses and the current account widened meaningfully in H2 2025 ([Exhibit 19](#)). Coupled with foreign equity outflows from an overvalued equity market into the rest of Asia, Rupee underperformance is understandable.

Exhibit 19: India’s current account deficit widened significantly in H2 2025



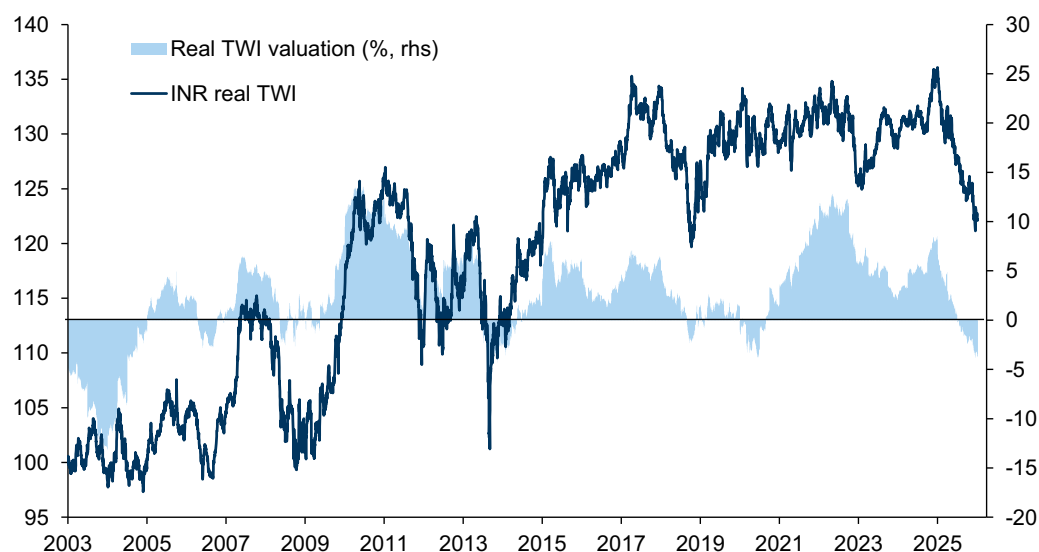
Source: Haver Analytics, Goldman Sachs Global Investment Research

However, much of the bad news is now in the price, the Rupee is modestly undervalued on a trade-weighted basis ([Exhibit 20](#)), and the macro fundamental picture is still robust. Inflation is very low and, while we expect it to pick up, it should stay solidly within the target zone, and there is scope for the RBI to ease further if fresh shocks materialise. Foreign reserves have been rebuilt over the course of the year and are approaching US\$700bn again, and growth and current activity indicators remain firm despite the external shocks, with financial and fiscal deregulation providing further support in the quarters ahead.

While the solid macro fundamental picture and RBI management should together limit further weakness and currency volatility, that is unlikely to translate into spot appreciation. Stronger currency performance is likely to come only alongside more strongly positive equity inflows. Foreigners net sold US\$20bn last year (the second-largest historically), pushing foreign ownership and mutual fund allocations near two-decade lows. However, recent reversals suggest improving foreign risk appetite and flows as earnings have started to recover, and our equity strategists have raised India

back to overweight after a year. If, at some point, there is also a fuller rapprochement in relations with the US, that could open up more upside. Overall, we expect a steadier performance from the currency in the year ahead, with USD/INR depreciating modestly towards the 91 level in the coming 12m, and expect that the Rupee will once again provide a source of resilient and low-vol carry.

Exhibit 20: The Rupee is modestly undervalued on a trade-weighted basis

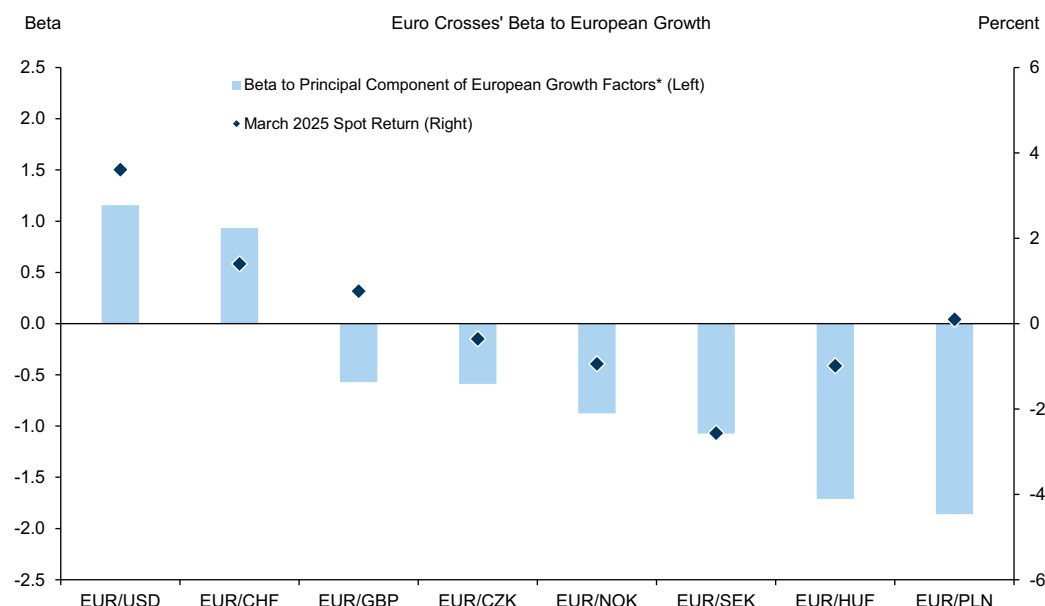


Source: Goldman Sachs FICC and Equities, Goldman Sachs Global Investment Research

G10 Euro Satellites: Tempered Tailwinds

The Scandis were among the top performers in the G10 in 2025 driven by a “perfect storm” of factors including upside surprises on European defense spending announcements and historically large reallocation flows. While this “perfect storm” of factors is unlikely to repeat itself in 2026, and Scandi outperformance therefore less likely to be as outsized in 2026 as it was in 2025, we still expect global and regional fundamentals to promote **SEK** and **NOK** to being the outperformers of G10 Europe in 2026. Support for both high-beta currencies from a pro-risk global cyclical backdrop, solid domestic fiscal positions, and exposure to the fiscal-driven European growth upside we expect this year should all be key tailwinds for the Scandis (Exhibit 21)

Exhibit 21: The Scandis are more levered to European growth than their regional G10 peers, as evidenced by price action during the fiscal re-rating last March

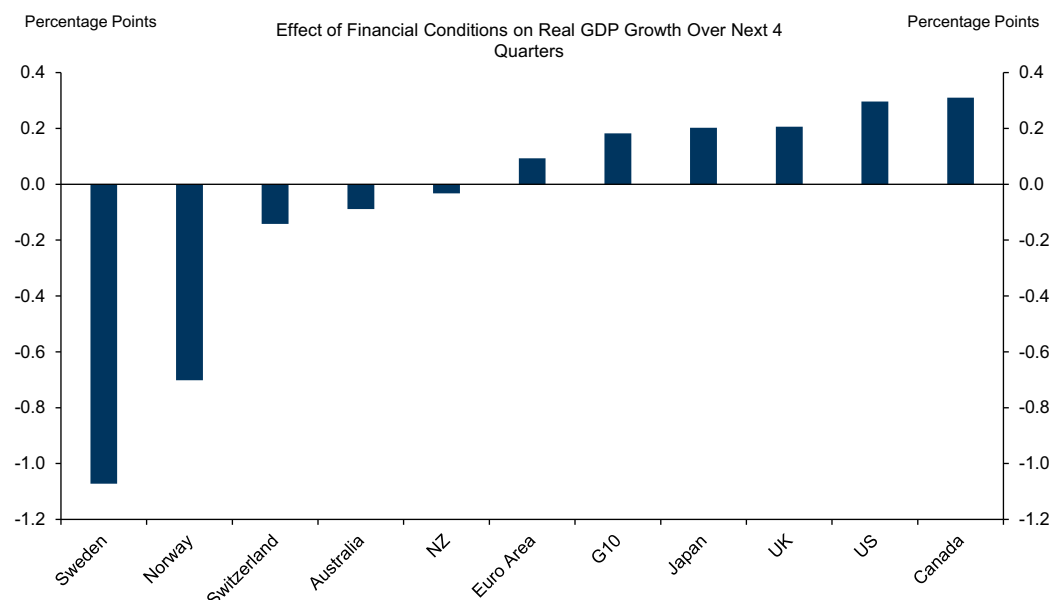


First principal component of the Euro area manufacturing PMI, the GS Euro area Current Activity Indicator, and the GS European Cyclical vs Defensives equity basket. Betas calculated on monthly data from Jan-2008 to Nov-2025, omitting March-May of 2020.

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

Meanwhile, important challenges remain for both currencies from the domestic front. Deteriorating labour market conditions in Sweden and Norway present downside risks to FX performance—particularly for NOK given our economists' expectation for a sharper set of Norges Bank cuts this year than is priced. Both countries will also likely face an outsized drag from financial conditions this year (Exhibit 22), with both small open economies sensitive to trade-weighted FX strength from 2025. On net though, we expect the global drivers to dominate, supported by clear undervaluation of both SEK and NOK relative to their European G10 peers under our GSDEER model. We forecast a drift lower in EUR/SEK to 10.40 and EUR/NOK to 11.40 by year-end.

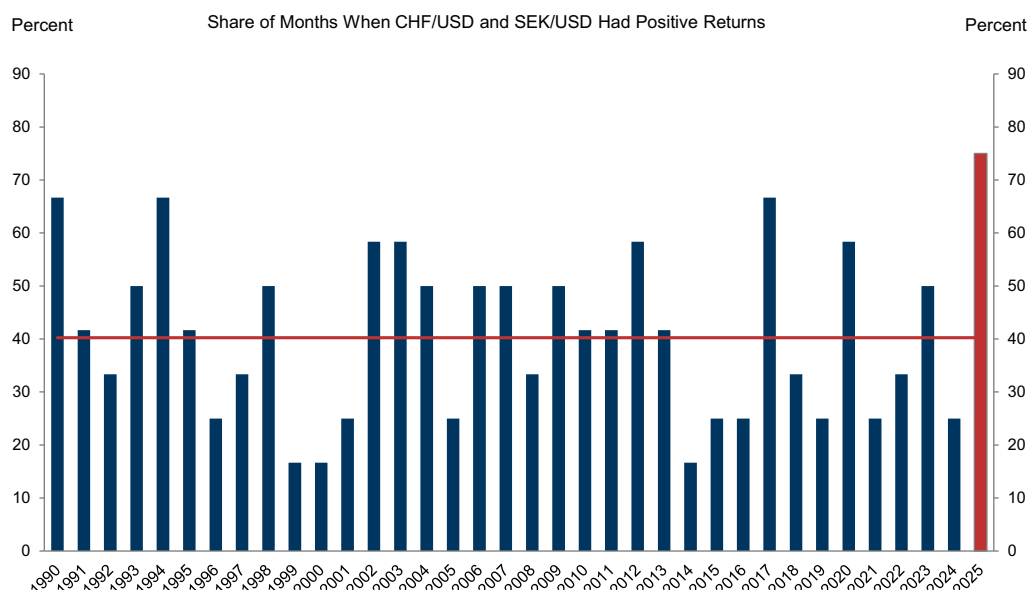
Exhibit 22: Norway and Sweden should both face meaningful financial condition drags in 2026



Source: Goldman Sachs Global Investment Research

Elsewhere in the European complex, a pro-risk global cyclical backdrop where growth remains resilient and the Fed is easing should weigh on the safe-haven **CHF** (though less so than JPY—see JPY section). This should support EUR/CHF in the medium term particularly given the limited domestic policy impulse where our economists expect both the ECB and the SNB to remain hold from here, though with two-sided risks for the ECB and risks skewed to the downside for the SNB. Along those lines, we recently argued that some sign that there is pressure on the currency would likely precede any further policy adjustment. Though we continue to see little evidence of clear currency pressure that could prompt a shift in stance, we will be watching for any shifts in the SNB's messaging should deflation challenge their expectation for inflation to rise in the coming quarters. A stronger correlation with Euro was also a key tailwind across the Euro complex in 2025, evidenced by the historically rare outcome of CHF and SEK having risen in tandem against the Dollar a majority of months (Exhibit 23). Despite the more challenging macro backdrop, CHF should still benefit from this tailwind alongside elevated geopolitical risks, which we expect will remain in focus in 2026. We forecast a drift lower in USD/CHF to 0.76 and a drift higher in EUR/CHF to 0.95 by year-end.

Exhibit 23: A stronger correlation with the Euro drove a high proportion of months with positive returns in both CHF and SEK in 2025



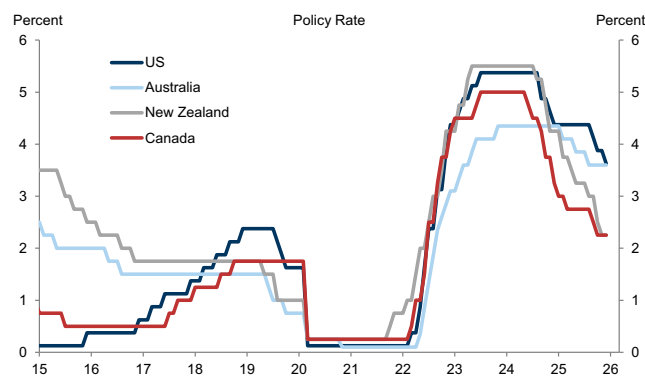
Source: Bloomberg, Goldman Sachs Global Investment Research

Small Open G10 Currencies: Here Comes the Sun

Our baseline macro outlook for above consensus growth in the US, China, and much of EM argues for outperformance across procyclical currencies, including AUD, NZD, and CAD. Domestic factors such as stronger activity data and less dovish monetary policy should also support stronger performance across these currencies. However, we see scope for some near-term differentiation and prefer AUD and NZD to CAD, where downside growth risks remain more elevated.

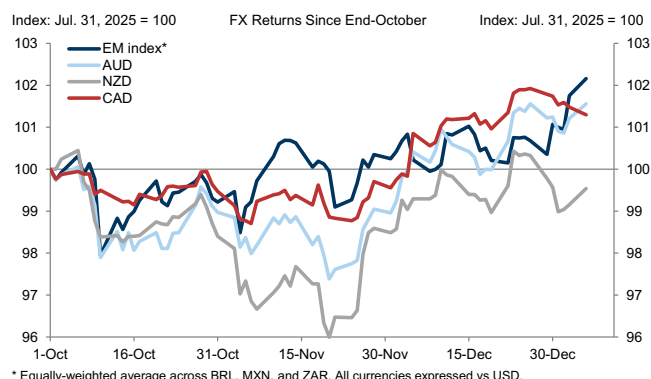
AUD and **NZD** are the most pro-cyclical currencies in G10 and should benefit from stronger global growth alongside higher beta EM currencies. AUD has performed well over the past quarter, in line with its typical beta to risk and other high beta EM FX. Australia's resilience throughout the cycle also partly reflects more gradual RBA hikes and a lower peak policy rate than other G10 economies ([Exhibit 24](#)). Meanwhile, New Zealand and Canada saw more and faster policy tightening in 2022. As a result, both have seen larger increases in the unemployment rate on net and a slower recovery despite recent policy easing. NZD, for this reason, has underperformed AUD and its typical beta to risk since October ([Exhibit 25](#)). The domestic backdrop in New Zealand has begun to show genuine signs of improvement in recent months though, and we see its previous underperformance as scope for NZD to make up ground. This is one of the key rationales for our long NZD trade recommendation. We think AUD still has room to run this year as well. It is well-positioned among G10s to benefit from our more bullish CNY outlook, given its exposure to intermediate demand, and its beta to CNY and Chinese equities.

Exhibit 24: Australia's resilience reflects more gradual RBA hikes and a lower peak policy rate than other G10 economies



Source: Haver Analytics, Goldman Sachs Global Investment Research

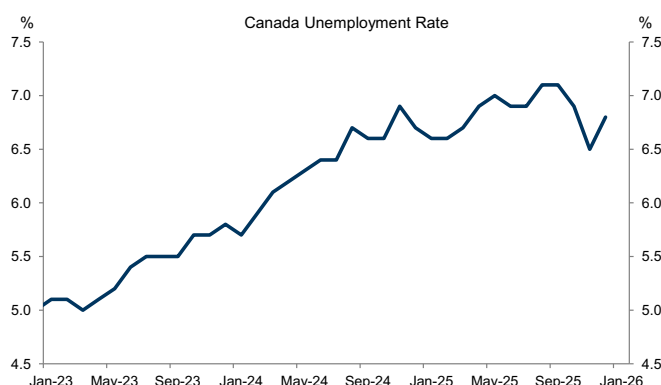
Exhibit 25: NZD has underperformed AUD and its typical beta to risk since October



Source: Bloomberg, Goldman Sachs Global Investment Research

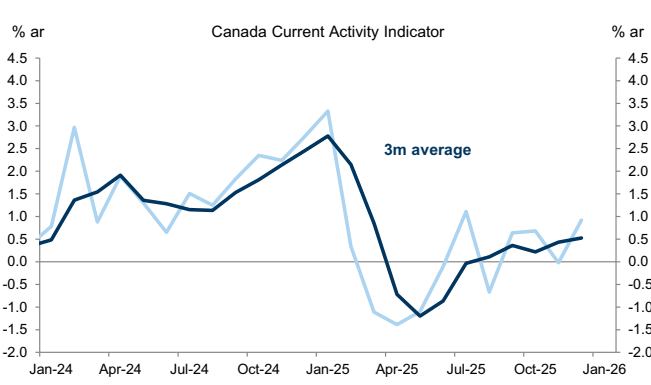
Canada seems likely to benefit from better global growth alongside AUD and NZD, but with some caveats that may see this outperformance a bit delayed. **CAD** is pro-cyclical currency, and we typically see the biggest divergence between CAD and USD in periods of strong global growth. Additionally, we are above consensus on US growth, which should benefit Canada on crosses. However, we see a couple of reasons that CAD outperformance could come later than AUD and NZD. First, while the latest activity data has surprised to the upside and seems to be bottoming out with the unemployment rate trending lower recently ([Exhibit 26](#)) and the CAI stabilizing, it has yet to show clear signs of improvement ([Exhibit 27](#)). The burden of proof remains on the data to confirm that growth has not just stabilized but is on an upward trajectory. Second, uncertainty regarding US-Canada trade relations remains a key near-term risk, with USMCA's mandatory joint review due in July 2026. The highest degree of CAD weakness in 2025 was off the back of US-Canada trade tensions in January, after President Trump proposed a 25% tariff on Canada. While most Canadian exports to the US are exempt under USMCA, Canada has been more affected than most by US trade policy uncertainty, with rising unemployment in some trade-intensive sectors and stickier domestic inflation following reciprocal tariffs on the US.

Exhibit 26: The latest activity data in Canada seems to be bottoming out with the unemployment rate trending lower recently...



Source: Haver Analytics, Goldman Sachs Global Investment Research

Exhibit 27: ...and the CAI stabilizing, though it has yet to show clear signs of improvement



Source: Bloomberg, Goldman Sachs Global Investment Research

Better domestic data across these economies have seen markets price rate hikes for 2026. The market pricing some risk of hikes into the end of the cutting cycle is not unusual though and seems fitting when inflation is still running close to or above target in these economies. While our economists do not forecast hikes for any of these central banks in 2026, the market could press further on this theme especially if green shoots turn into more sustainable improvements in the data. In the near-term, we remain more cautious on CAD, but think AUD and NZD could see further upside versus the Dollar. However, we prefer expressing policy convergence across Australia and New Zealand in short AUD/NZD. Over the course of the year though, we see a good opportunity to be long AUD, NZD, and CAD to capture stronger global growth.

BRL & COP: Switching Gears

BRL and **COP** were among the best-performing EM currencies in 2025, reversing a large part of their 2024 depreciation and outperforming their typical betas to other market developments (with greater outperformance for COP than BRL). This largely reflected a “reach for carry” within EM FX, as well as a decline in investor focus on fiscal and policy risks. Fiscal policy remained loose in both jurisdictions, but these risks are well understood by market participants and to a degree reflected in rate curves, and both central banks have pivoted to a more hawkish stance. When it comes to monetary policy, our economists forecast a switch in gears, with the BCB cutting rates and BanRep embarking on a hiking cycle. While higher real rates can partially offset currency risks in Colombia from greater fiscal slippage, we think that this shift would have limited implications for relative spot returns as real rates remain elevated in both Brazil and Colombia relative to the rest of EM (which should be supportive of total returns) (Exhibit 28).

Exhibit 28: Real policy rates to remain elevated in Brazil and Colombia relative to the rest of EM

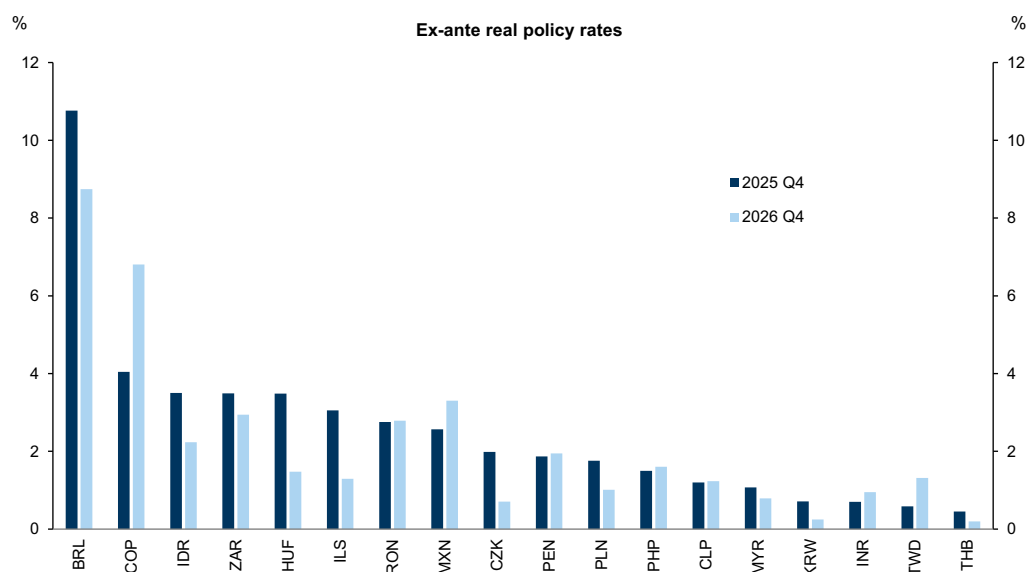
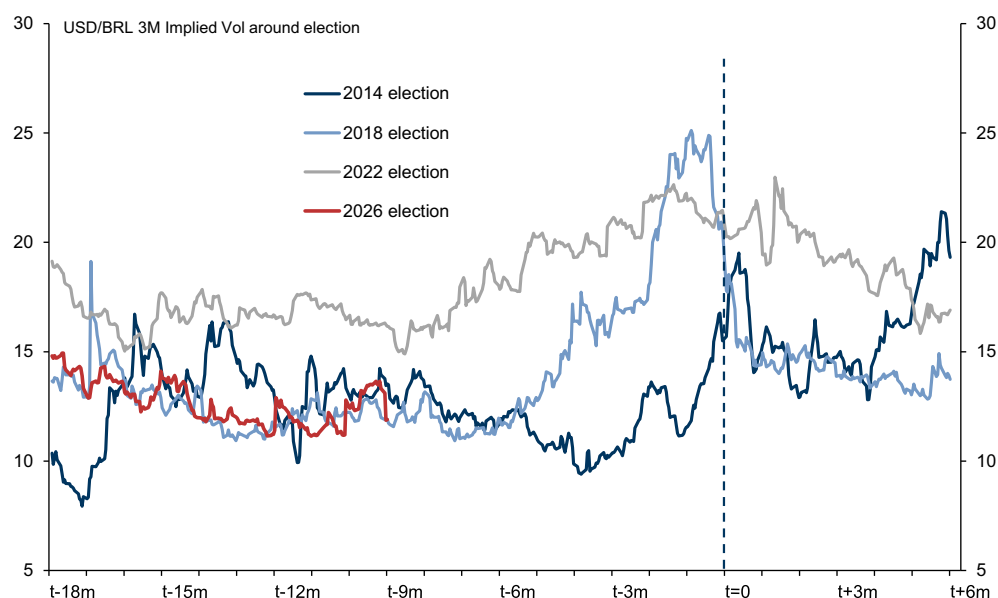


Exhibit uses GS economists' forecasts for policy rates and proxies inflation expectations with the one-year-ahead GS inflation forecast

Source: Goldman Sachs Global Investment Research

Our benign global outlook for 2026 argues for a continued decline of the risk premium still embedded in these currencies, especially if there is a “gear switch” towards greater fiscal discipline and market-friendly policies after the elections (in March and May in Colombia, and in October in Brazil). However, headline noise is likely to pick up in the run-up to these elections and lead to an erosion of carry-to-vol ratios, which may cause investors to seek steady carry returns elsewhere (for instance, USD/BRL implied volatility has picked up ahead of the last three Presidential elections, [Exhibit 29](#)). Nonetheless, in Brazil’s case, to the extent that market participants focus on a less market-friendly election outcome, we think this would be better reflected as a lower probability that the full extent of BRL’s risk premium is unwound, rather than a significant underperformance relative to the premium already embedded in forwards. Moreover, we have found that a significant part of BRL’s appreciation through 2025 can be explained by other market developments, including improving terms of trade, such that the Real continues to have a healthy valuation buffer. Instead, we think that COP screens as more vulnerable heading into the elections given the continued deterioration in the fiscal outlook and the fact that it outperformed their typical betas to other market developments to a greater extent in 2025, and looks increasingly dislocated from the negative skew in our oil price expectations.

Exhibit 29: USD/BRL implied volatility has risen ahead of the last 3 Presidential elections



T=0 refers to the date of the first round of the Presidential election

Source: Bloomberg, Goldman Sachs Global Investment Research

Box: FX Positioning—Follow the Fast Money

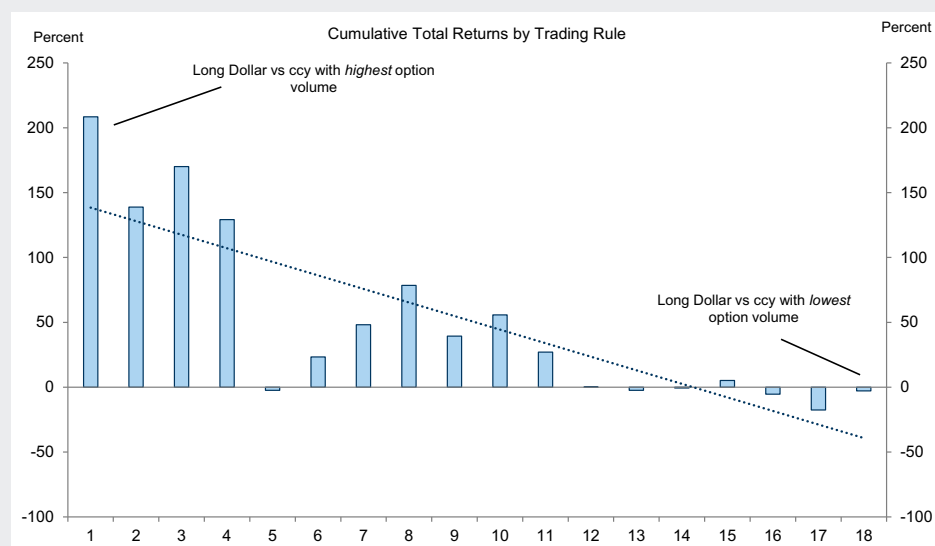
Positioning metrics in FX markets across different investor groups are often used as key inputs for trading decisions. Long net positioning in a given currency pair is typically seen as a marker of a ‘crowded’ trade and as a contrarian indicator for future returns.

In [recent work](#), we tested the direction and reliability of the forward-looking signals from a range of

different FX positioning measures and overall found more support for the idea that bullish positioning is a *reinforcing* signal for future spot returns rather than a contrarian one. As a starting point, we follow the approach of Czech et al. (2022) in using publicly available DTCC options data to test the forward-looking signal from FX options volumes for future returns. The hypothesis is that, given the market's structural positive net Dollar demand, higher volumes in a given Dollar pair indicate greater short positioning in the quote currency.¹

Czech et al. find that trading rules that go long the Dollar in *higher* volume pairs tend to outperform versus trading rules that go long the Dollar in *lower* volume pairs—implying better relative returns in currencies with positive positioning versus those with negative positioning. We confirm the result of Czech et. al. but adjust their approach slightly to include a broader set of 18 Dollar pairs and by forming trading rules based on volumes relative to their historical mean rather than on absolute volumes. We view the outperformance of Trading Rules 1-4 ([Exhibit 30](#)) as a clear argument for a reinforcing signal for future spot FX returns being sent by volumes-based positioning metrics. Crucially though, these results are only significant in periods of structurally positive Dollar positions and do not apply to periods of structurally negative Dollar positioning.

Exhibit 30: Trading rules based on options volumes for key Dollar pairs tend to diverge over time

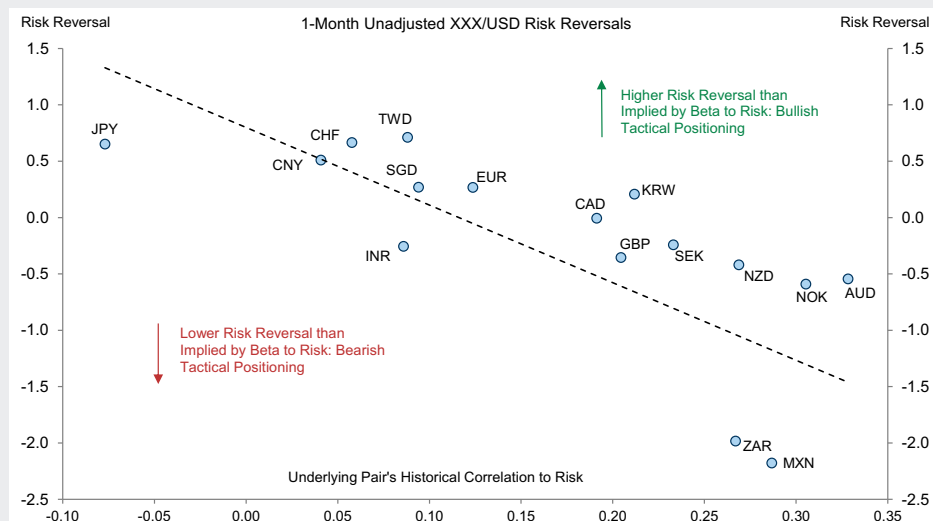


Trading Rule 1 initiates a Dollar long versus the currency with the highest traded volume (relative to its historical mean). Each subsequent rule initiates a long against the currency with the next highest traded volume. Trading rules are rebalanced daily, and are inclusive of carry, but not inclusive of transaction costs. We use a sample of January 2014 to present.

Source: Goldman Sachs Global Investment Research, Bloomberg

Beyond the options-volumes-based results, we find that risk reversals—the difference between the implied volatilities of an out-the-money call option and an equally out-the-money put option—can be used to produce even stronger signals for future spot returns. In order to improve the quality of the signals from the risk reversals, we first strip out the structural hedge-based premiums embedded in skew across currency pairs by examining them *relative* to their historical beta to risk ([Exhibit 31](#)). The strong negative relationship between pairs' beta to risk and their current 1-month risk reversal is a result of structural demand for downside protection to risk.

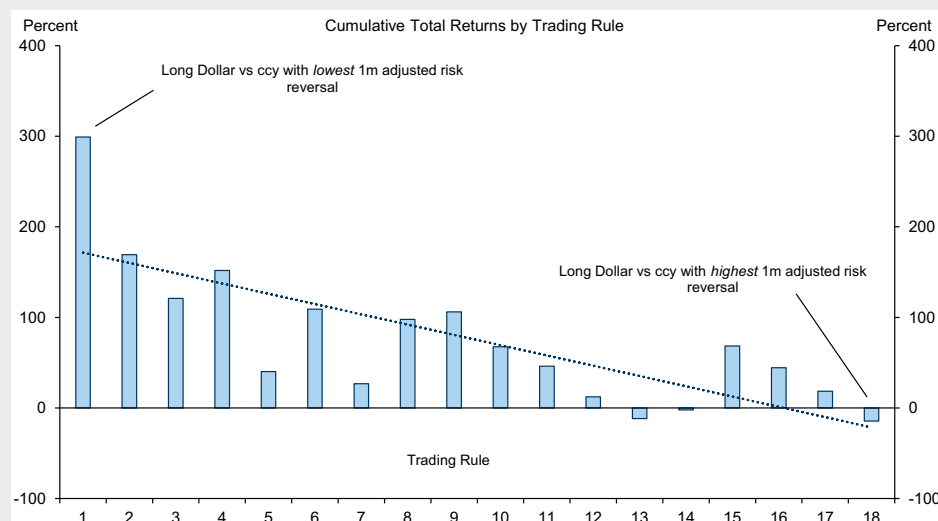
Exhibit 31: Risk reversals are typically negatively influenced by the underlying pair's correlation to risk



Source: Goldman Sachs Global Investment Research, Bloomberg

Similar to the volumes-based positioning measures, we can use these beta-adjusted risk reversals to construct trading rules for the same set of 18 Dollar pairs. We find clear divergence across the trading rules for this approach as well, with notable outperformance in the rules that go long the Dollar versus the currencies with the most negative beta-adjusted risk reversals ([Exhibit 32](#)). In other words, short positioning translates into further depreciation, on average. The 'slope' across these trading rules is also steeper than it is across the option-volumes based trading rules, which we think argues for a slightly better forward-looking bullish signal from the risk-reversal-based measures.

Exhibit 32: The divergence across our risk-reversal-based trading rules implies clear advantages to treating short positioning as a bearish signal



Trading Rule 1 initiates a Dollar long versus the currency with the lowest 1-month beta-adjusted risk reversal. Each subsequent rule initiates a long against the currency with the next lowest beta-adjusted risk reversal. Trading rules are rebalanced daily and are inclusive of carry but not inclusive of transaction costs. We use a sample of January 2011 to present.

Source: Goldman Sachs Global Investment Research, Bloomberg

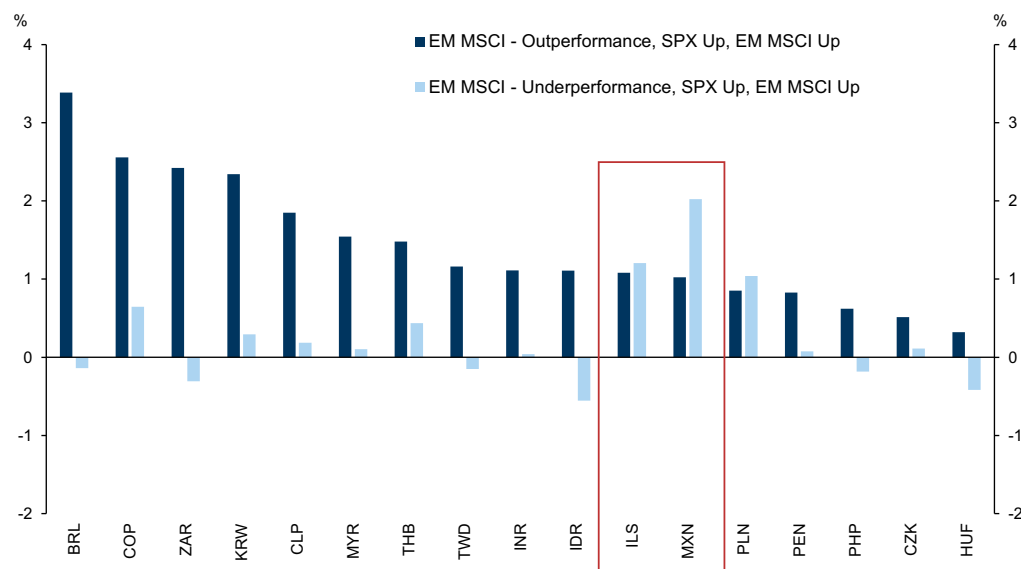
¹Krishnamurthy, A. and Vissing-Jorgensen, A., 2012. The aggregate demand for treasury debt. *Journal of Political Economy*, 120(2), pp.233-267.

MXN & ILS: Tagging Along, But Not For Long

Elsewhere in Latin America, **MXN** was a quiet outperformer in 2025 despite Banxico delivering large rate cuts. In addition to MXN's elevated carry, a reduction in tariff-related risk premium (which had increased in the run-up to the US election) and better-than-feared US growth outcomes supported the currency. Our economists' expectation for US growth to outperform consensus expectations argues for the Peso to continue performing well in 2026. And, while not our base case, in a scenario where market focus returns to "US exceptionalism", EUR-funded MXN carry longs screen as attractive, in our view. While a less natural pairing, MXN and **ILS** share a key feature in their sensitivity to US cyclical pricing, whereby the relative outperformance of EM equities has not historically led to stronger currency performance ([Exhibit 33](#)). Therefore, as long as US cyclical assets are performing well, this will place appreciation pressures on both the Mexican Peso and the Israeli Shekel.

Exhibit 33: MXN and ILS are highly levered to US cyclical pricing and the outperformance of EM equities has not historically led to stronger currency performance

Monthly returns of EM FX vs. USD (CEE vs. EUR), in periods of out/underperformance of MSCI EM vs S&P

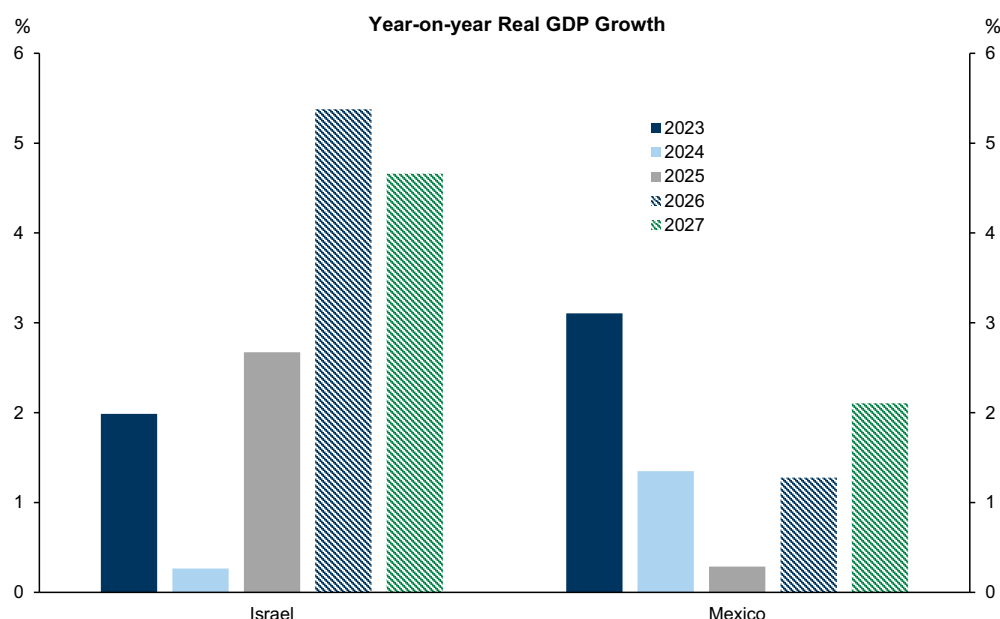


Source: Goldman Sachs FICC and Equities, Goldman Sachs Global Investment Research

However, as we go through the year, we think these currencies will likely reach their appreciation limits, and the skew of risks will flip towards depreciation, for two key reasons. First, valuations are likely to become more of a constraint as both currencies now screen as overvalued on our frameworks ([Exhibit 36](#) below). Second, local headline noise may pick up through the year. In Mexico, following this year's reduction in tariff risk premium, the upcoming USMCA review may lead to renewed increases in this premium, even if temporary. And in Israel, the relaxation in political noise post the ceasefire agreement could reverse, with a legislative election to be held no later than October 2026.

Still, there are important differences between the two economies. Growth in Mexico slowed considerably in 2025 and our economists only expect a small re-acceleration to still-below-trend growth in 2026. Conversely, our economists forecast above-consensus Israeli growth on a sharper post-conflict recovery, which could positively surprise FX investors ([Exhibit 34](#)). And, if FX hedge ratios of local institutional investors were to increase in the year ahead (though they were largely unchanged in 2025), this could prove to be an added tailwind for the Shekel. However, on the carry front, MXN's high carry means that ILS may be the more attractive short between the two for investors looking to hedge their US tech exposure.

Exhibit 34: Growth to pick up in Mexico but to remain below-trend, whereas our economists forecast above-potential growth in Israel



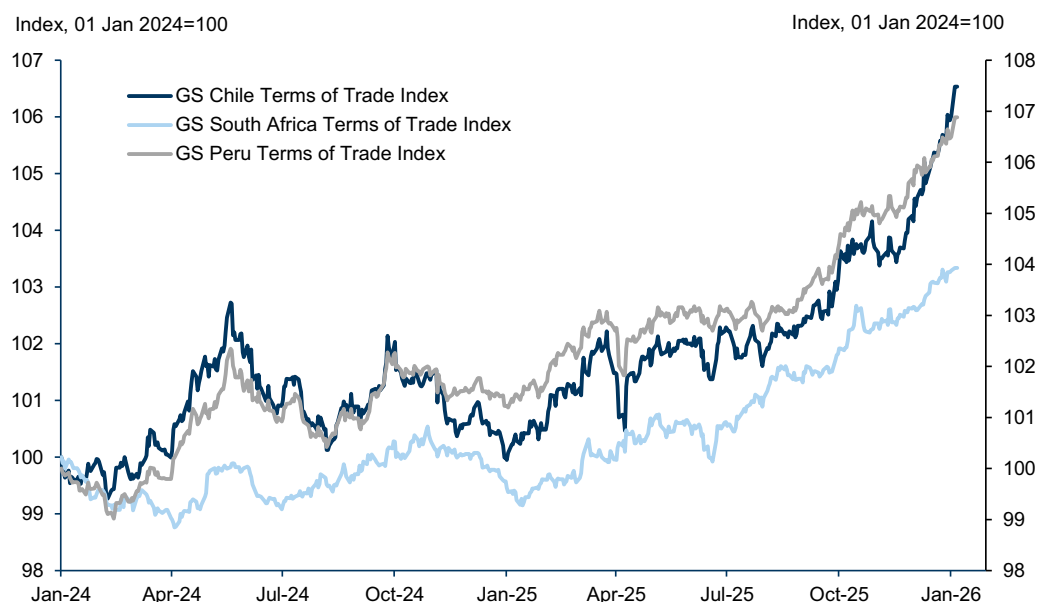
2025 numbers reflect GS forecasts

Source: Goldman Sachs Global Investment Research

ZAR, CLP & PEN: Pedal to the Metal

Among the more pro-cyclical high-carry currencies, **ZAR** stands out as a candidate with positive domestic tailwinds, with the ongoing fiscal consolidation, a rating upgrade, and a lower inflation target all supportive for the Rand, in our view. And while **CLP** and **PEN** carry is lower, these currencies share the global tailwinds with ZAR that we think will lead them to outperform in 2026 (with PEN as a lower volatility expression given tighter currency management). First, these economies have seen a surge in their terms of trade with the rally in copper, iron ore and precious metal prices, and the decline in oil prices (Exhibit 35); and our commodities team's forecasts suggest that this metals vs. energy divergence can carry on in 2026.

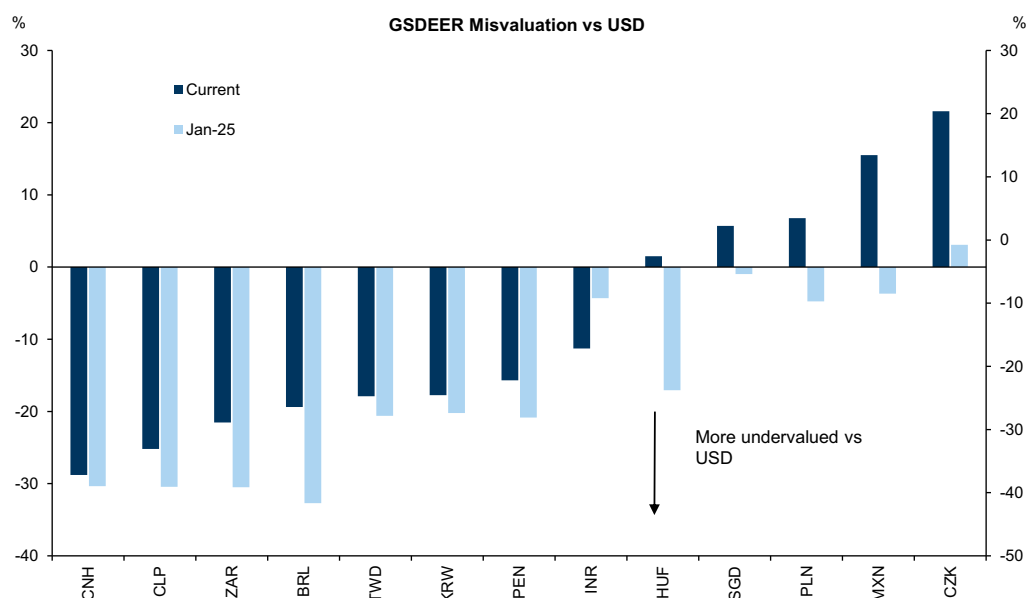
Exhibit 35: Chile, Peru and South Africa's terms of trade have surged over the last few months on the back of the rally in metals prices and decline in oil prices



Source: Bloomberg, Goldman Sachs Global Investment Research

Second, under our strong Chinese export growth forecasts, ZAR and CLP appear more insulated from increased trade competition and could benefit from demand for intermediate goods, keeping external balances supported. These currencies are also among the most sensitive to moves in CNY, which we think will continue to appreciate in 2026. Third, and relatedly, CLP and ZAR (and PEN to a lesser extent) are among the most undervalued EM currencies versus the Dollar even after their strong 2025 performance (Exhibit 36). We think this tight linkage to CNY may help explain why these currencies remain so undervalued versus the Dollar, and a stronger CNY (beyond our expectations) may be required for this to shift more meaningfully.

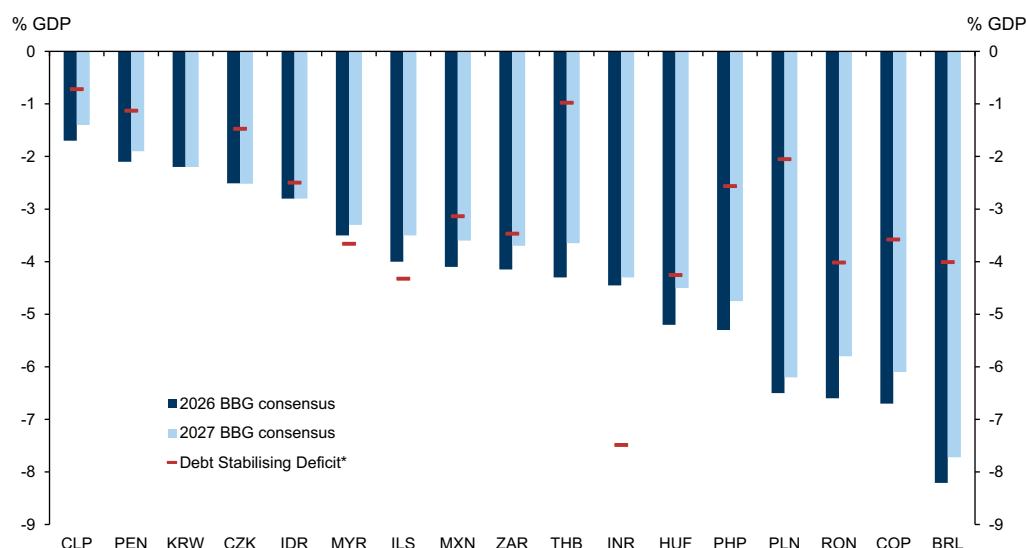
Exhibit 36: CLP and ZAR (and PEN to a lesser extent) are among the most undervalued EM currencies versus the Dollar even after their strong 2025 performance



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

Fourth, fiscal fundamentals are strong across these economies, which we think warrants rate differentials reflecting a lower risk premium ([Exhibit 37](#)). While this narrowing of rate differentials has been a headwind (especially for CLP), these solid macroeconomic positions should be increasingly evident in FX outcomes over time.

While we maintain a bullish outlook on these currencies, in part due to local developments, we think there are still risks worth monitoring on this front. In South Africa, the SARB has discussed the possibility of FX intervention to accumulate reserves. Active intervention with strong flow and signalling effects would go against the aim of lowering inflation expectations and reaching the new, lower inflation target of 3% on a sustained basis. We therefore do not think this would completely offset other market forces pushing in a ZAR positive direction, including foreign inflows into local markets (in addition to the aforementioned factors). In Chile, the BCCh's narrow interest rate differential policy, which led to near-zero CLP carry, and its prioritisation of reserve accumulation over currency appreciation have been important headwinds over the past year. As the Peso trends stronger, it will be key to see whether these efforts step up, which could lead to lower CLP returns than otherwise. In Peru, the central bank resumed FX interventions in November 2025, after not having leaned against PEN appreciation for most of the year. This may mean that PEN appreciation in 2026 is slower than in 2025 even as terms of trade continue to improve. There will also be a general election in Peru in April with a highly fragmented electoral landscape generating significant political uncertainty. While political risks were a key driver of PEN weakening in 2021, the impact was more muted during the removal of President Boluarte in October 2025. With the central bank holding around 28% of GDP in official reserves, we think the FX impact of any rise in political noise should be limited.

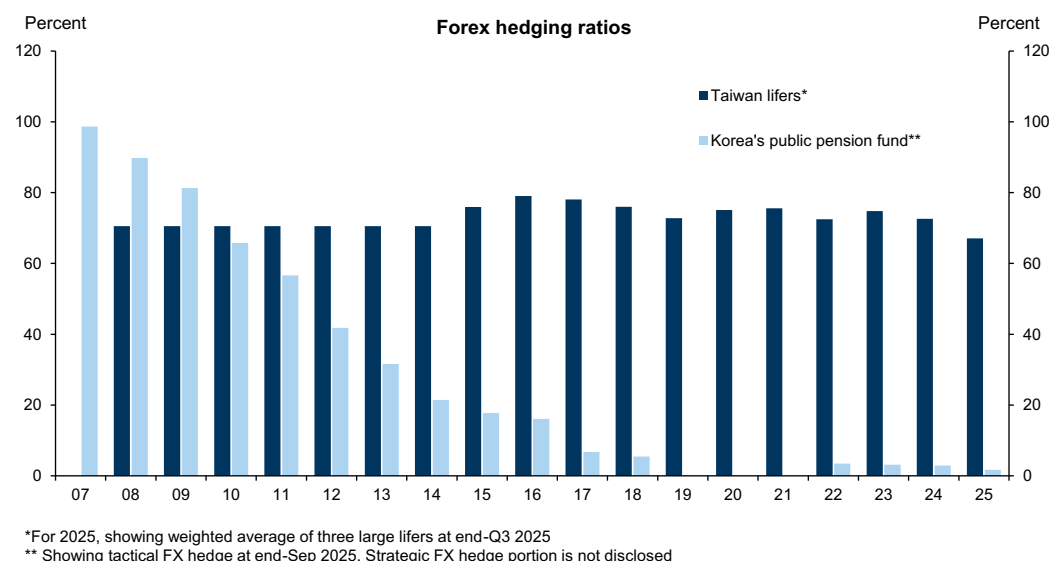
Exhibit 37: Chile and Peru have two of the lowest fiscal deficits among emerging markets

*The debt stabilising deficit takes into account the projected change in debt levels and deficits between 2025 and 2027 and here is shown as an average for both years, rather than the total over the two years

Source: Bloomberg, IMF, Goldman Sachs Global Investment Research

EM Asia FX: Tech-Related Currencies to Outperform High-Yielders

We expect tech-related low-yielding Asian currencies (KRW, TWD and MYR) to outperform in 2026, given our above-consensus growth view for China and CNY, and that AI-related investment has room to run. Despite better-than-expected exports in South Korea over the past year and the KOSPI rising by 70% since April 2025, **KRW** came under pressure in H2-2025 from heavy portfolio outflows by domestic investors. To address this, policymakers announced a slew of measures in December aimed at supporting the Korean Won. The National Pension Service (NPS) has reportedly re-started its FX hedging program, which by our estimates, could result in US\$50bn-worth of USD FX forward sales (Exhibit 38). The authorities also announced a tax incentive program for investors switching holdings from overseas to domestic assets. FTSE will start to phase Korean Treasury Bonds (KTBs) into the World Government Bond Index (WGBI) between April and November. We think ~US\$20bn of pre-positioning flows has already happened but expect another US\$40-50bn of index-related flows in 2026. Given that we are starting the year at relatively elevated levels for USD/KRW, we think the KRW has room to outperform Asian FX in 2026.

Exhibit 38: We estimate that NPS has room to increase their FX hedges by USD 50bn

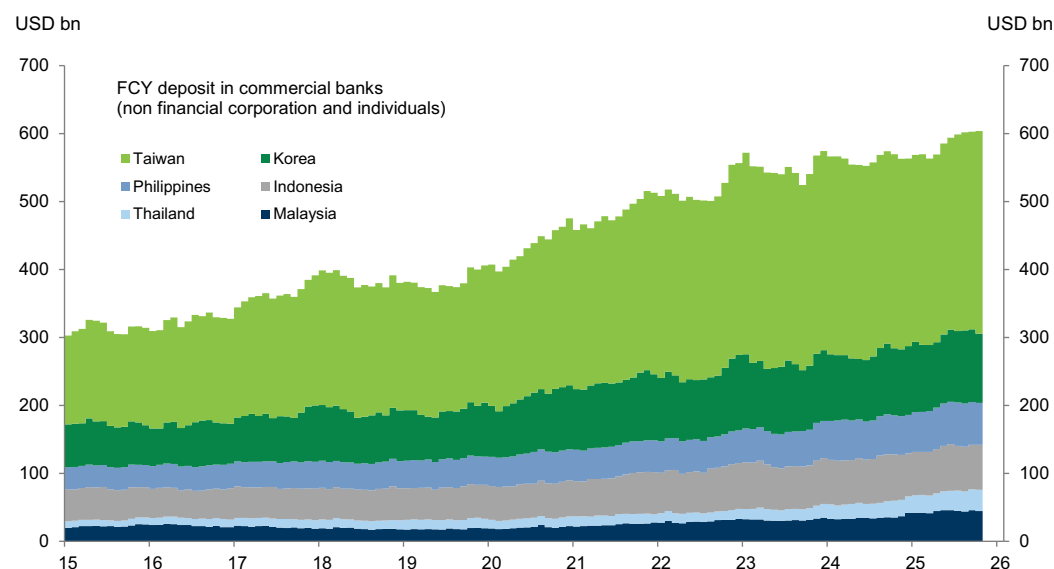
Source: NPS, Data compiled by Goldman Sachs Global Investment Research

It was a tale of two halves for **TWD** in 2025 and, after weakening in H2, the currency has underperformed **NJA** FX over the past month, as Taiwan's regulators have proposed accounting rule changes reducing the FX hedge requirements for life insurance companies' holdings in foreign assets. We think this resulted in the unwinding of FX hedges, as reflected by the rise in USD/TWD NDF points. However, we note that the medium-term FX fundamentals are still supportive for TWD. Growth is still buoyed by a robust export outlook. We expect the current account surplus to stay strong at around 18-19% of GDP for the second consecutive year (versus 11-14% in 2020-2024). Foreign currency deposits onshore have risen to US\$300bn, and we expect exporter FX conversion to pick up, as USD vs TWD differentials narrow and USD depreciates ([Exhibit 39](#)). Lastly, despite accounting rule changes, if hedging costs cheapen with lower US rates, then hedging demand should pick up organically. We expect **MYR's** outperformance of Asian FX in 2025 to be repeated in 2026. The current account surplus has been growing, supported by Malaysia's linkages to the tech supply chain. FDI has been strong (particularly into data centres) and the BNM has a stable policy outlook (while other ASEAN central banks are still in easing mode). Following the unexpected outperformance in 2025, we think **THB** will underperform low-yield **NJA** FX this year. The growth outlook is weak, exports face stiff competition from China and tourism arrivals have been below expectations. Meanwhile, policymakers have repeatedly voiced concerns over THB strength (versus fundamentals) and have been actively looking for policies to delink the positive correlation between gold and THB.

High-yielding currencies (PHP, IDR and INR) should lag in 2026. In the Philippines, with growth slowing and inflation low, we think the BSP will opt to cut rates further, while allowing more weakness in **PHP**. Moreover, as we have observed in neighboring countries, government spending (particularly capex) has a tendency to undershoot during periods of anti-corruption focus. Indonesia's central bank has shifted its focus back to prioritizing **IDR** stability, and keeping policy rates steady in October, November and December, outlining that it wants to assess the impact of previous liquidity easing

measures. However, given the government's desire for "8%" GDP growth, the sluggish external sector outlook (on lower commodity prices) and 3% annual fiscal deficit cap, we think the BI will cut rates if USD/IDR comes off its record highs. This suggests it will be challenging for the Rupiah to outperform peers if the BI is looking to cut rates further when possible.

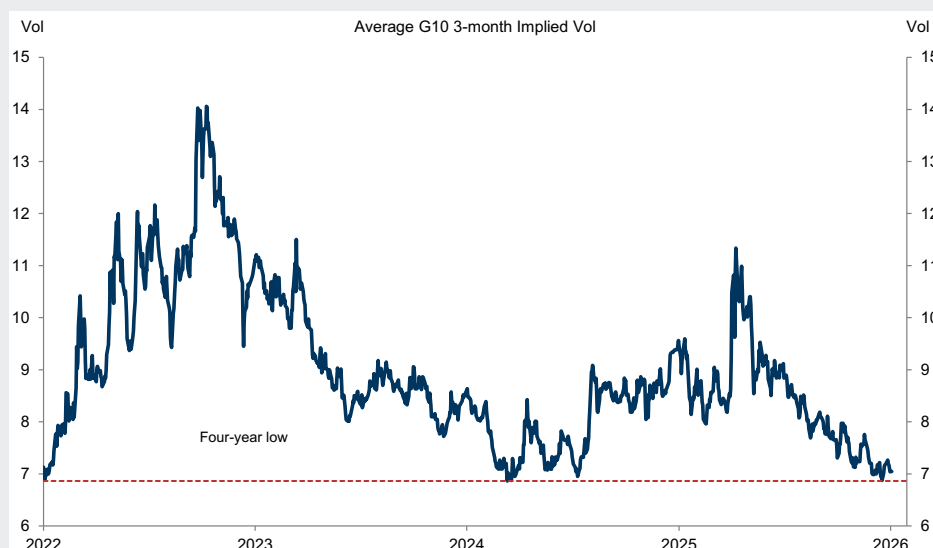
Exhibit 39: Foreign currency deposits have been rising in Asia, particularly in Taiwan, Korea, the Philippines and Malaysia



Source: Haver Analytics, Goldman Sachs Global Investment Research

Box: FX Vol—Low for Now, but Not for Long

FX volatility has declined in recent months alongside more benign US economic data and a relaxation in tail recession and inflation risks ([Exhibit 40](#)). We have previously [argued](#) that shifts in volatility are closely related to macroeconomic conditions. In this box, we quantify the [impact of macro uncertainty](#) on FX implied volatility and gauge how much economic conditions justify the lower levels of implied vol we see today. Our results suggest that FX implied volatility is currently underpricing macro risks.

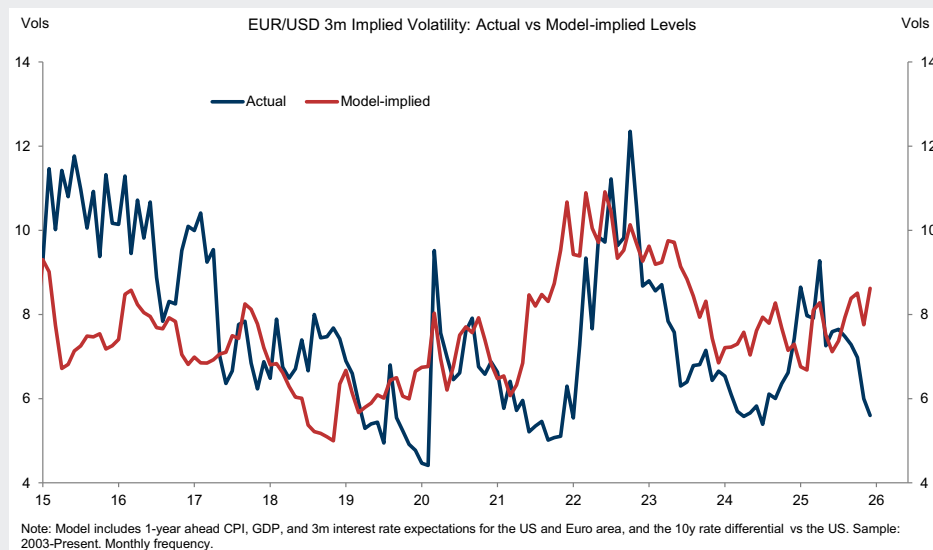
Exhibit 40: Implied vols remain exceptionally low relative to the past year

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

In order to quantify the impact of macro uncertainty on FX implied volatility, we begin by constructing simple measures of economic uncertainty. We calculate these uncertainty measures using Consensus Economics surveys of forecast dispersion across GDP, inflation, and monetary policy for the US, Euro area, UK, and Japan. When the standard deviation of economic forecasts for the year ahead increases, we interpret it as an increase in uncertainty on the macroeconomic outlook. We measure the impact of macro risks on FX implied vol by running regressions of 3-month implied volatility on these measures of 1-year ahead macro uncertainty.

Despite the broader relaxation in FX vols, the latest refresh of these macro vol models indicates that FX implied vol for EUR/USD should be somewhat higher due to increasing macro uncertainty ([Exhibit 41](#)) and, across macro factors, inflation uncertainty has had the largest cumulative positive contribution to implied vol over the past four months. In 2025, declining inflation uncertainty was the biggest drag on volatility. More benign inflation data after the April 2 tariff announcements allowed markets to narrow the scope of inflation outcomes. We think this is one of the key macro reasons for lower implied vol since then. More recently though, inflation uncertainty has picked back up, driven by more “extreme” forecasts on the left tail of the inflation distribution. In other words, the skewness of rising inflation uncertainty has turned more negative, suggesting more bearish inflation forecasts entering the mix. Nevertheless, the mean inflation forecast has increased slightly over this period.

Exhibit 41: Our macro vol models indicated that EUR/USD implied vol is currently underpricing macro uncertainty



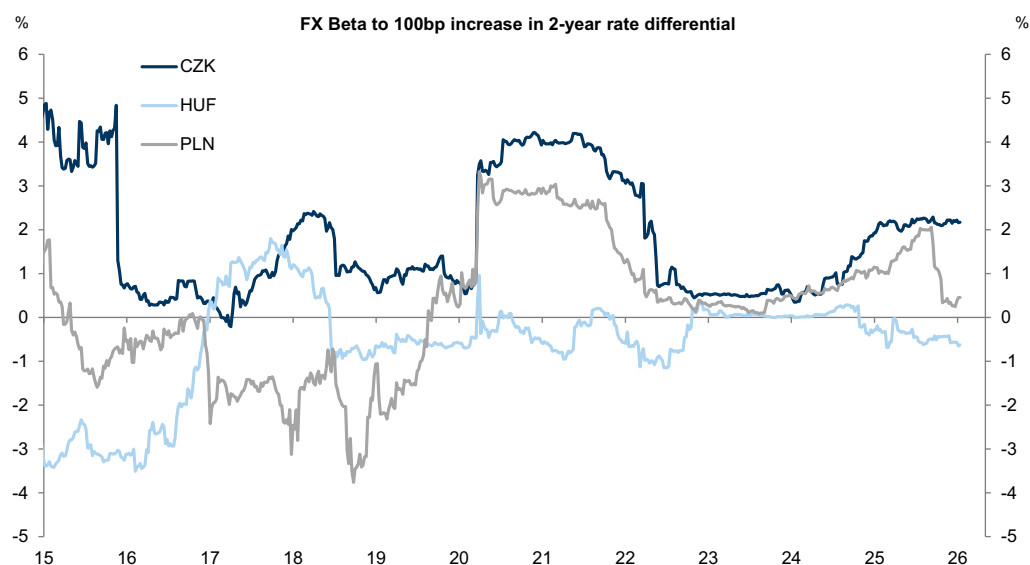
Source: Goldman Sachs Global Investment Research, Consensus Economics, Goldman Sachs FICC and Equities

Despite very low levels of vol presently, the upside of lower volatility means that directional views can be expressed more inexpensively, particularly in spots where investors think the macro is more likely to surprise. Given that our models show that implied vol is underpricing macro risks, we think this makes for an attractive backdrop to be long vol in crosses where implied vols remain at historical lows and macro risks still look elevated.

CEE: Holding On

The CEE currencies were bolstered across the board by the strong Euro backdrop in 2025. In our view, the relative performance—with **HUF** taking the lead, **CZK** following close behind and **PLN** lagging—was consistent with relative valuation constraints and central bank action. In particular, we have found a fairly tight correlation between front-end rate differentials for CZK and PLN that pushed CZK stronger over the last year, but led the Zloty weaker as the NBP pivoted to rate cuts (though this PLN beta to rate differentials has since declined, Exhibit 42). In the year ahead, there is likely to be some convergence on this factor as the NBP is reaching the later stages of its cutting cycle, which is well reflected in rates markets, whereas our economists' outlook for rates in Hungary and the Czech Republic remains more dovish than current market expectations.

Exhibit 42: Over the last couple of years, monetary policy shifts have had a clearer impact on CZK and PLN returns than on HUF returns

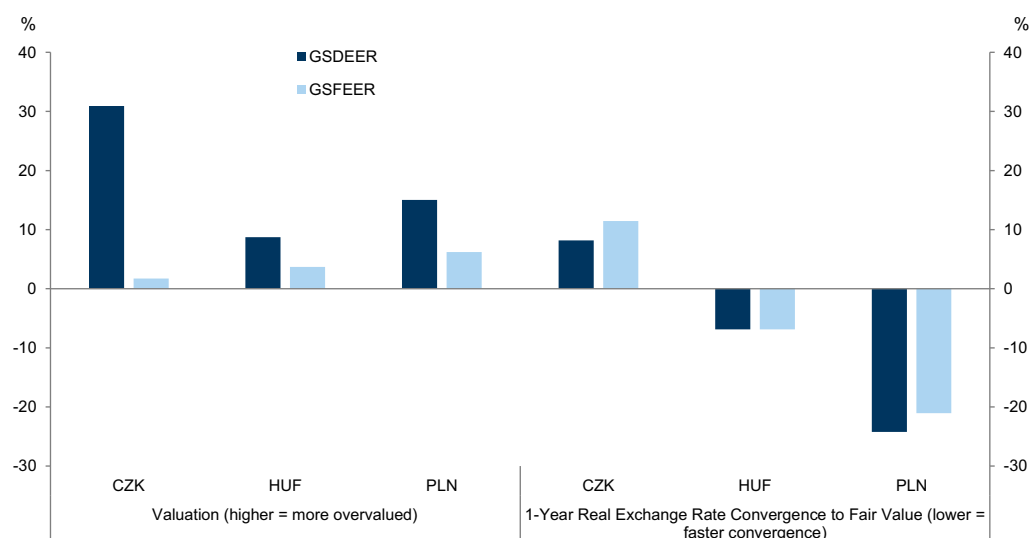


Betas estimated on weekly data over rolling 2-year horizons, controlling for other market factors. LHS exhibit displays the median beta across a range of specifications. Between Nov. 2013 and April 2017 the CNB had a EUR/CZK floor at 27 policy.

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

We think both CZK and PLN will hold on to their strength in the year ahead and trade in a relatively tight range, with HUF offering scope for a larger appreciation move. While there is likely to be some convergence in relative performance based on monetary policy, we maintain a preference for CZK over PLN over the medium term. This is because we have found more evidence of relative competitiveness erosion in Poland than in Czechia, and the Zloty has historically converged to its fair value faster than its regional peers ([Exhibit 43](#)). CZK's low convergence rate is consistent with tighter currency management historically. Here, the main 'right-tail' risk to the Koruna is if the German manufacturing sector outperforms investor expectations given the strong supply chain linkages between the two countries. More broadly, Euro appreciation should continue to have small, yet positive spillovers onto the CEE currencies. And while we think there is a limited geopolitical risk premium embedded at this stage, we would expect the regional currencies to react positively to any breakthrough on the Russia-Ukraine war, with HUF and PLN outperformance.

Exhibit 43: CZK and PLN more overvalued than HUF; PLN has historically converged to its fair value faster than its regional peers



Source: Goldman Sachs Global Investment Research

Most of these external factors also apply to HUF, but here the key driver of the currency will likely be the April elections. We think the possibility of a closer relationship with the EU following the elections will continue to imply appreciation pressure over coming months. And, if realised, could eventually lead to a move of similar magnitude to the PLN move in 2023. But with the MNB pivoting its messaging in a dovish direction in December, we think monetary policy and potential election risks are now better aligned for rate receivers, though we maintain a constructive outlook on the currency. Plus, even after its outperformance in 2025, the Forint is still the least overvalued currency in the region on our frameworks (Exhibit 43).

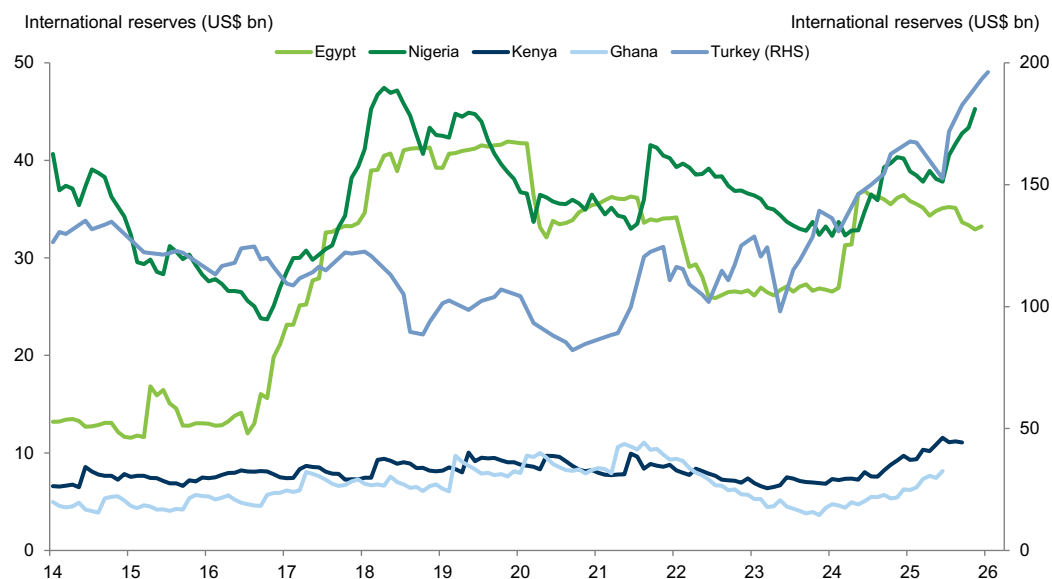
Elsewhere in the region, we maintain our baseline view that **RON** trends weaker versus EUR but in a relatively controlled way. The odds of a more front-loaded FX adjustment have declined and, on the fiscal front, external pressures for a faster adjustment have also eased and the Romanian authorities are targeting a reduction in the fiscal deficit in 2026. But, while fiscal fundamentals are heading in a better direction, the twin deficits remain large and continue to be a source of depreciation pressure, in our view.

TRY & Frontier FX: Uncorrelated Sources of Carry

2025 was a year of strong performance in Frontier FX, particularly in CEEMEA, with EGP, GHS, NGN, and TRY all posting double-digit total returns. We think that Frontier currencies continue to represent an attractive total return proposition in 2026 under our baseline of a more range-bound broad Dollar environment relative to 2025: they feature higher carry levels but a lower correlation to Dollar strength and global volatility relative to EM HY FX counterparts. And importantly, on the back of a more benign external outlook, official reserve assets have risen across a number of these jurisdictions, providing an additional cushion to FX returns (Exhibit 44). In part because of this reserve accumulation, we see risks skewed towards FX appreciation for **EGP**, **NGN** and **KES**, which also screen as undervalued on our Frontier GSDEER framework (we maintain a

short USD/EGP trade recommendation opened in mid-July of last year).

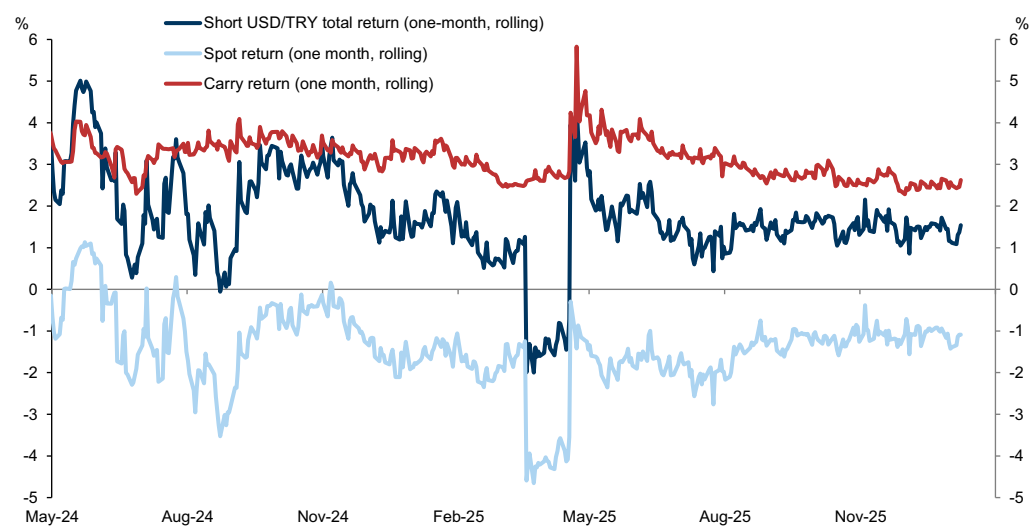
Exhibit 44: Official reserve assets have risen across various Frontier markets, providing an additional cushion to FX returns



Source: Haver Analytics, Goldman Sachs Global Investment Research

In Türkiye, official reserve assets have more than reversed their decline following the March 2025 Lira sell-off largely owing to the sharp rise in gold prices. With this reserve backing, the pace of **TRY** depreciation continues to be mostly a policy choice, where we think policymakers are mindful of not allowing the real trade-weighted exchange rate to appreciate significantly. Our economists expect headline inflation continue falling in 2026, and we think this can lead to a slight decline in the pace of TRY depreciation. This would offset the reduction in carry as the TCMB cuts rates, such that TRY monthly total returns remain at around 1–1.5% (Exhibit 45). The main risk to our constructive view on these currencies is the elevated positioning in still relatively illiquid FX markets that could reverse sharply on a negative shock. Finally, we think the direction of travel for the Argentine Peso (**ARS**) is weaker along wider FX flotation bands, given the authorities' objective to accumulate international reserves more rapidly this year from critically low levels.

Exhibit 45: TRY monthly total returns to remain steady around 1-1.5%



Source: Bloomberg, Goldman Sachs Global Investment Research

Global FX Forecasts

	Current Spot	3-Month Horizon		6-Month Horizon		12-Month Horizon		Longer-term Forecasts (eop)		
		Forward	Forecast	Forward	Forecast	Forward	Forecast	2027	2028	2029
G10										
EUR/\$	1.17	1.17	1.18	1.18	1.20	1.18	1.25	1.24	1.23	1.23
£/\$	1.34	1.34	1.33	1.34	1.33	1.34	1.36	1.33	1.31	1.29
AUD/\$	0.67	0.67	0.68	0.67	0.69	0.67	0.70	0.73	0.75	0.77
NZD/\$	0.58	0.58	0.60	0.58	0.61	0.58	0.62	0.63	0.65	0.66
\$/CAD	1.39	1.38	1.36	1.38	1.34	1.37	1.32	1.30	1.29	1.28
\$/CHF	0.80	0.79	0.80	0.78	0.78	0.77	0.76	0.76	0.76	0.76
\$/NOK	10.08	10.09	9.83	10.10	9.58	10.12	9.12	8.74	8.45	8.19
\$/SEK	9.22	9.18	8.98	9.14	8.75	9.07	8.32	8.06	7.90	7.82
\$/JPY	157	156	157	155	155	153	152	139	129	122
EMEA										
\$/CZK	20.8	20.8	20.5	20.8	20.0	20.7	19.1	19.5	20.0	20.4
\$/HUF	330	332	318	334	313	338	304	312	319	325
\$/PLN	3.61	3.61	3.60	3.61	3.54	3.62	3.40	3.48	3.54	3.59
\$/RON	4.36	4.38	4.36	4.41	4.32	4.46	4.20	4.33	4.39	4.42
\$/RUB	83.7	83.7	80.0	86.9	85.0	93.3	90.0	91.4	93.0	94.7
\$/UAH	43.1	44.0	44.0	45.7	46.0	48.2	48.0	49.2	50.6	52.0
\$/TRY	43.0	46.1	45.0	49.3	47.0	56.4	51.0	58.9	66.5	75.0
\$/ILS	3.17	3.17	3.15	3.17	3.20	3.16	3.25	3.27	3.30	3.32
\$/ZAR	16.53	16.64	16.80	16.75	16.60	16.99	16.40	15.84	15.41	15.10
\$/NGN	1423	1466	1425	1514	1400	1616	1375	1561	1746	1882
Americas										
\$/ARS	1463	1577	1630	1680	1720	1902	1870	1964	2069	2178
\$/BRL	5.39	5.51	5.20	5.62	5.30	5.85	5.30	5.20	5.11	5.04
\$/MXN	17.97	18.14	18.00	18.30	18.25	18.67	18.50	19.27	19.80	20.23
\$/CLP	897	897	900	897	890	899	880	844	816	793
\$/PEN	3.36	3.37	3.30	3.39	3.25	3.41	3.25	3.16	3.09	3.03
\$/COP	3710	3800	3900	3873	3850	4035	3800	3821	3816	3796
Asia										
\$/CNY	6.98	6.93	6.95	6.89	6.90	6.83	6.85	6.54	6.29	6.09
\$/HKD	7.79	7.77	7.80	7.76	7.80	7.73	7.80	7.80	7.80	7.80
\$/INR	90.0	90.6	89.5	91.2	91.0	92.4	91.0	90.7	90.7	90.8
\$/KRW	1453	1448	1440	1443	1420	1435	1390	1344	1311	1285
\$/MYR	4.06	4.05	4.10	4.05	4.05	4.04	3.95	3.80	3.68	3.57
\$/SGD	1.28	1.28	1.28	1.27	1.27	1.26	1.26	1.23	1.21	1.20
\$/TWD	31.6	31.7	30.5	31.6	30.0	31.6	29.5	28.4	27.4	26.7
\$/THB	31.52	31.37	32.00	31.22	31.50	30.93	31.50	30.60	29.90	29.24
\$/IDR	16793	16876	16600	16911	16500	17041	16300	15940	15660	15438
\$/PHP	59.2	59.4	60.0	59.5	59.5	59.9	59.0	58.6	58.3	58.1
Euro Crosses										
EUR/GBP	0.87	0.87	0.89	0.87	0.90	0.88	0.92	0.93	0.94	0.96
EUR/CHF	0.93	0.93	0.94	0.92	0.94	0.91	0.95	0.94	0.94	0.94
EUR/NOK	11.76	11.81	11.60	11.87	11.50	11.97	11.40	10.82	10.42	10.10
EUR/SEK	10.75	10.75	10.60	10.74	10.50	10.74	10.40	9.98	9.75	9.64
EUR/CZK	24.29	24.37	24.20	24.44	24.00	24.55	23.90	24.17	24.64	25.13
EUR/HUF	385	389	375	393	375	399	380	386	393	400
EUR/PLN	4.21	4.23	4.25	4.25	4.25	4.28	4.25	4.31	4.36	4.42
EUR/RON	5.09	5.13	5.15	5.18	5.18	5.28	5.25	5.36	5.42	5.45
EUR/RUB	97.6	98.1	94.4	102.1	102.0	110.4	112.5	113.2	114.7	116.7

DXY			-1%		-2%		-5%			
USD TWI			0%		-1%		-1%			
USD (simple average)			-1%		-1%		-3%			

Note: Spot values are as of Thursday's close. Dollar aggregates show spot returns.

See dynamic table here (or click image above): <https://publishing.gs.com/content/themes/fx-forecasts.html>

Source: Goldman Sachs Global Investment Research

Return Forecasts & Valuations

	Current Spot	Forecast: 12-Month Return (%)				GSDEER			GSFEER			Average Estimate	PPP*
		Spot	Carry	Total	NEER	Estimate	Misalignment		Estimate	Misalignment			
							Bilateral	Trade-Weighted		Bilateral	Trade-Weighted		
G10													
EUR/\$	1.17	7.2	-1.5	5.6	4.9	1.21	-3%	9%	1.18	-1%	-1%	1.20	1.51
GBP/\$	1.34	1.1	0.1	1.2	-2.9	1.22	11%	24%	1.29	4%	5%	1.24	1.49
AUD/\$	0.67	4.5	0.4	5.0	1.7	0.81	-17%	5%	0.70	-4%	2%	0.76	0.69
NZD/\$	0.58	7.8	-1.0	6.7	4.8	0.68	-16%	1%	0.57	1%	6%	0.64	0.67
\$/CAD	1.39	5.0	-1.2	3.7	4.0	1.26	-9%	-4%	1.41	2%	2%	1.32	1.17
\$/CHF	0.80	5.1	-3.6	1.4	1.3	0.85	7%	15%	0.808	1%	3%	0.83	0.95
\$/NOK	10.08	10.5	0.4	10.9	5.4	7.27	-28%	-21%	8.72	-13%	-13%	7.85	8.99
\$/SEK	9.22	10.8	-1.6	9.0	4.6	7.44	-19%	-10%	9.15	-1%	-1%	8.12	8.38
\$/JPY	156.9	3.2	-2.7	0.4	0.8	94	-40%	-30%	125	-20%	-14%	107	94
EMEA													
\$/CZK	20.83	9.0	-0.4	8.5	3.2	25.3	21%	30%	21.1	1%	2%	23.6	15.9
\$/HUF	330	8.6	2.2	11.0	3.0	334	1%	8%	345	4%	4%	338	260
\$/PLN	3.61	6.2	0.2	6.4	1.0	3.85	7%	15%	3.9	7%	6%	3.86	2.48
\$/RON	4.36	3.9	2.2	6.2	--	--	--	--	5.11	17%	16%	--	--
\$/RUB	83.7	-7.0	11.4	3.7	-9.9	84.27	1%	20%	90.86	9%	16%	86.91	40.75
\$/UAH	43.09	-10.2	11.8	1.6	--	--	--	--	--	--	--	--	--
\$/TRY	43.04	-15.6	31.1	10.6	-18.4	30.16	-30%	-26%	42.56	-1%	3%	35.12	23.95
\$/ILS	3.17	-2.3	-0.5	-2.8	-4.5	3.54	12%	25%	3.70	17%	6%	3.61	4.81
\$/ZAR	16.5	0.8	2.8	3.6	-2.3	12.91	-22%	-12%	16.4	-1%	-1%	14.31	18.34
\$/NGN	1423	3.5	13.5	17.0	--	--	--	--	--	--	--	--	--
Americas													
\$/ARS	1463.3	-21.8	30.0	8.2	-23.5	--	--	--	--	--	--	--	--
\$/BRL	5.39	1.6	8.5	10.3	0.7	4.34	-19%	-6%	5.77	7%	13%	4.92	5.13
\$/MXN	17.97	-2.8	3.9	0.9	-4.1	20.74	15%	24%	18.40	2%	2%	19.80	20.07
\$/CLP	897	2.0	0.1	2.1	0.7	670	-25%	-11%	918	2%	4%	769	759
\$/PEN	3.36	3.5	1.5	5.1	2.3	2.84	-16%	-3%	3.08	-8%	-4%	2.93	3.99
\$/COP	3710	-2.4	8.8	6.2	-3.4	3637	-2%	11%	3947	6%	7%	3761	3172
Asia													
\$/CNY	6.98	2.0	-2.2	-0.3	-0.8	4.98	-29%	-21%	6.01	-14%	-12%	5.39	6.11
\$/HKD	7.79	-0.1	-0.7	-0.8	-2.5	7.02	-10%	14%	6.90	-11%	-1%	6.97	5.97
\$/INR	90.03	-1.1	2.7	1.6	-3.0	79.71	-11%	-3%	81.48	-9%	-4%	80.42	57.37
\$/KRW	1453	4.5	-1.2	3.3	2.2	1189	-18%	0%	1268	-13%	-7%	1220	917
\$/MYR	4.06	2.8	-0.6	2.3	0.1	3.33	-18%	-1%	4.25	5%	9%	3.70	2.01
\$/SGD	1.285	2.0	-2.1	-0.2	-0.8	1.36	5%	25%	1.29	1%	6%	1.33	0.59
\$/TWD	31.58	7.0	-0.1	7.0	4.4	25.9	-18%	2%	25.1	-20%	-12%	25.6	13.9
\$/THB	31.52	0.1	-1.9	-1.8	-2.5	30.22	-4%	18%	32.79	4%	9%	31.25	19.36
\$/IDR	16793	3.0	1.5	4.5	0.7	14452	-14%	5%	14574	-13%	-6%	14501	11000
\$/PHP	59.19	0.3	1.1	1.5	-2.3	56.85	-4%	18%	59.10	0%	10%	57.75	52.44
Euro Crosses													
EUR/GBP	0.87	-5.7	1.6	-4.1	-2.9	0.99	14%	24%	0.92	6%	5%	0.96	1.01
EUR/CHF	0.93	-1.9	-2.1	-4.0	1.3	1.03	10%	15%	0.96	3%	3%	1.00	1.43
EUR/NOK	11.76	3.1	1.8	5.0	5.4	8.78	-25%	-21%	10.31	-12%	-13%	9.39	13.58
EUR/SEK	10.75	3.4	-0.1	3.2	4.6	8.98	-16%	-10%	10.82	1%	-1%	9.71	12.65
EUR/CZK	24.29	1.6	1.1	2.7	3.2	30.49	26%	30%	25.00	3%	2%	28.30	24.01
EUR/HUF	385	1.3	3.7	5.0	3.0	403	5%	8%	407	6%	4%	405	393
EUR/PLN	4.21	-0.9	1.6	0.7	1.0	4.64	10%	15%	4.6	9%	6%	4.61	3.74
EUR/RON	5.09	-3.1	3.7	0.6	--	--	--	--	6.04	19%	16%	--	--
EUR/RUB	97.6	-13.2	12.9	-0.3	-9.9	101.7	4%	20%	107.4	10%	16%	104.0	--
Addendum													
USD	--	-2.5	-1.8	-4.1	-2.9	--	--	14%	--	--	5%	--	--

See dynamic table here (or click image above): <https://publishing.gs.com/content/themes/table.html?criteriaKey=1k2HGqqS2h>

Source: Goldman Sachs Global Investment Research

Disclosure Appendix

Reg AC

We, Kamakshya Trivedi, Michael Cahill, Danny Suwanapruti, Teresa Alves, Karen Reichgott Fishman, Stuart Jenkins, Isabella Rosenberg, Victor Engel and Lexi Kanter, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

Unless otherwise stated, the individuals listed on the cover page of this report are analysts in Goldman Sachs' Global Investment Research division.

Disclosures

Regulatory disclosures

Disclosures required by United States laws and regulations

See company-specific regulatory disclosures above for any of the following disclosures required as to companies referred to in this report: manager or co-manager in a pending transaction; 1% or other ownership; compensation for certain services; types of client relationships; managed/co-managed public offerings in prior periods; directorships; for equity securities, market making and/or specialist role. Goldman Sachs trades or may trade as a principal in debt securities (or in related derivatives) of issuers discussed in this report.

The following are additional required disclosures: **Ownership and material conflicts of interest:** Goldman Sachs policy prohibits its analysts, professionals reporting to analysts and members of their households from owning securities of any company in the analyst's area of coverage. **Analyst compensation:** Analysts are paid in part based on the profitability of Goldman Sachs, which includes investment banking revenues. **Analyst as officer or director:** Goldman Sachs policy generally prohibits its analysts, persons reporting to analysts or members of their households from serving as an officer, director or advisor of any company in the analyst's area of coverage. **Non-U.S. Analysts:** Non-U.S. analysts may not be associated persons of Goldman Sachs & Co. LLC and therefore may not be subject to FINRA Rule 2241 or FINRA Rule 2242 restrictions on communications with a subject company, public appearances and trading in securities covered by the analysts.

Additional disclosures required under the laws and regulations of jurisdictions other than the United States

The following disclosures are those required by the jurisdiction indicated, except to the extent already made above pursuant to United States laws and regulations. **Australia:** Goldman Sachs Australia Pty Ltd and its affiliates are not authorised deposit-taking institutions (as that term is defined in the Banking Act 1959 (Cth)) in Australia and do not provide banking services, nor carry on a banking business, in Australia. This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act, unless otherwise agreed by Goldman Sachs. In producing research reports, members of Global Investment Research of Goldman Sachs Australia may attend site visits and other meetings hosted by the companies and other entities which are the subject of its research reports. In some instances the costs of such site visits or meetings may be met in part or in whole by the issuers concerned if Goldman Sachs Australia considers it is appropriate and reasonable in the specific circumstances relating to the site visit or meeting. To the extent that the contents of this document contains any financial product advice, it is general advice only and has been prepared by Goldman Sachs without taking into account a client's objectives, financial situation or needs. A client should, before acting on any such advice, consider the appropriateness of the advice having regard to the client's own objectives, financial situation and needs. A copy of certain Goldman Sachs Australia and New Zealand disclosure of interests and a copy of Goldman Sachs' Australian Sell-Side Research Independence Policy Statement are available at: <https://www.goldmansachs.com/disclosures/australia-new-zealand/index.html>. **Brazil:** Disclosure information in relation to CVM Resolution n. 20 is available at <https://www.gs.com/worldwide/brazil/area/gir/index.html>. Where applicable, the Brazil-registered analyst primarily responsible for the content of this research report, as defined in Article 20 of CVM Resolution n. 20, is the first author named at the beginning of this report, unless indicated otherwise at the end of the text. **Canada:** This information is being provided to you for information purposes only and is not, and under no circumstances should be construed as, an advertisement, offering or solicitation by Goldman Sachs & Co. LLC for purchasers of securities in Canada to trade in any Canadian security. Goldman Sachs & Co. LLC is not registered as a dealer in any jurisdiction in Canada under applicable Canadian securities laws and generally is not permitted to trade in Canadian securities and may be prohibited from selling certain securities and products in certain jurisdictions in Canada. If you wish to trade in any Canadian securities or other products in Canada please contact Goldman Sachs Canada Inc., an affiliate of The Goldman Sachs Group Inc., or another registered Canadian dealer. **Hong Kong:** Further information on the securities of covered companies referred to in this research may be obtained on request from Goldman Sachs (Asia) L.L.C. **India:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (India) Securities Private Limited, Research Analyst - SEBI Registration Number INH000001493, 10th Floor, Ascent-Worli, Sudam Kalu Ahire Marg, Worli, Mumbai-400 025, India, Corporate Identity Number U74140MH2006FTC160634, Phone +91 22 6616 9000, Fax +91 22 6616 9001. Goldman Sachs may beneficially own 1% or more of the securities (as such term is defined in clause 2 (h) the Indian Securities Contracts (Regulation) Act, 1956) of the subject company or companies referred to in this research report. Investment in securities market are subject to market risks. Read all the related documents carefully before investing. Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. Goldman Sachs (India) Securities Private Limited compliance officer and investor grievance contact details can be found at: <https://www.goldmansachs.com/worldwide/india/documents/Grievance-Redressal-and-Escalation-Matrix.pdf>, and a copy of the annual audit compliance report can be found at this link: <https://publishing.gs.com/content/site/india-annual-compliance-report.html>. **Japan:** See below. **Korea:** This research, and any access to it, is intended only for "professional investors" within the meaning of the Financial Services and Capital Markets Act, unless otherwise agreed by Goldman Sachs. Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (Asia) L.L.C., Seoul Branch. **New Zealand:** Goldman Sachs New Zealand Limited and its affiliates are neither "registered banks" nor "deposit takers" (as defined in the Reserve Bank of New Zealand Act 1989) in New Zealand. This research, and any access to it, is intended for "wholesale clients" (as defined in the Financial Advisers Act 2008) unless otherwise agreed by Goldman Sachs. A copy of certain Goldman Sachs Australia and New Zealand disclosure of interests is available at: <https://www.goldmansachs.com/disclosures/australia-new-zealand/index.html>. **Russia:** Research reports distributed in the Russian Federation are not advertising as defined in the Russian legislation, but are information and analysis not having product promotion as their main purpose and do not provide appraisal within the meaning of the Russian legislation on appraisal activity. Research reports do not constitute a personalized investment recommendation as defined in Russian laws and regulations, are not addressed to a specific client, and are prepared without analyzing the financial circumstances, investment profiles or risk profiles of clients. Goldman Sachs assumes no responsibility for any investment decisions that may be taken by a client or any other person based on this research report. **Singapore:** Goldman Sachs (Singapore) Pte. (Company Number: 198602165W), which is regulated by the Monetary Authority of Singapore, accepts legal responsibility for this research, and should be contacted with respect to any matters arising from, or in connection with, this research. **Taiwan:** This material is for reference only and must not be reprinted without permission. Investors should carefully consider their own investment risk. Investment results are the responsibility of the individual investor. **United Kingdom:** Persons who would be categorized as retail clients in the United Kingdom, as such term is defined in the rules of the Financial Conduct Authority, should read this research in conjunction with prior Goldman Sachs research on the covered companies referred to herein and should refer to the risk warnings that have been sent to them by Goldman Sachs International. A copy of these risks warnings, and a glossary of certain financial terms used in this report, are available from Goldman Sachs International on request.

European Union and United Kingdom: Disclosure information in relation to Article 6 (2) of the European Commission Delegated Regulation (EU)

(2016/958) supplementing Regulation (EU) No 596/2014 of the European Parliament and of the Council (including as that Delegated Regulation is implemented into United Kingdom domestic law and regulation following the United Kingdom's departure from the European Union and the European Economic Area) with regard to regulatory technical standards for the technical arrangements for objective presentation of investment recommendations or other information recommending or suggesting an investment strategy and for disclosure of particular interests or indications of conflicts of interest is available at <https://www.gs.com/disclosures/europeanpolicy.html> which states the European Policy for Managing Conflicts of Interest in Connection with Investment Research.

Japan: Goldman Sachs Japan Co., Ltd. is a Financial Instrument Dealer registered with the Kanto Financial Bureau under registration number Kinsho 69, and a member of Japan Securities Dealers Association, Financial Futures Association of Japan Type II Financial Instruments Firms Association, The Investment Trusts Association, Japan, and Japan Investment Advisers Association. Sales and purchase of equities are subject to commission pre-determined with clients plus consumption tax. See company-specific disclosures as to any applicable disclosures required by Japanese stock exchanges, the Japanese Securities Dealers Association or the Japanese Securities Finance Company.

Global product; distributing entities

Goldman Sachs Global Investment Research produces and distributes research products for clients of Goldman Sachs on a global basis. Analysts based in Goldman Sachs offices around the world produce research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy. This research is disseminated in Australia by Goldman Sachs Australia Pty Ltd (ABN 21 006 797 897); in Brazil by Goldman Sachs do Brasil Corretora de Títulos e Valores Mobiliários S.A.; Public Communication Channel Goldman Sachs Brazil: 0800 727 5764 and / or contatogoldmanbrasil@gs.com. Available Weekdays (except holidays), from 9am to 6pm. Canal de Comunicação com o Público Goldman Sachs Brasil: 0800 727 5764 e/ou contatogoldmanbrasil@gs.com. Horário de funcionamento: segunda-feira à sexta-feira (exceto feriados), das 9h às 18h; in Canada by Goldman Sachs & Co. LLC; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co., Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs New Zealand Limited; in Russia by OOO Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman Sachs & Co. LLC. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom.

Goldman Sachs International ("GSI"), authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA, has approved this research in connection with its distribution in the United Kingdom.

European Economic Area: Goldman Sachs Bank Europe SE ("GSBE") is a credit institution incorporated in Germany and, within the Single Supervisory Mechanism, subject to direct prudential supervision by the European Central Bank and in other respects supervised by German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin) and Deutsche Bundesbank and disseminates research within the European Economic Area.

General disclosures

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. The information, opinions, estimates and forecasts contained herein are as of the date hereof and are subject to change without prior notification. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by Global Investment Research. Goldman Sachs & Co. LLC, the United States broker dealer, is a member of SIPC (<https://www.sipc.org>).

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and principal trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, principal trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

We and our affiliates, officers, directors, and employees will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives, if any, referred to in this research, unless otherwise prohibited by regulation or Goldman Sachs policy.

The views attributed to third party presenters at Goldman Sachs arranged conferences, including individuals from other parts of Goldman Sachs, do not necessarily reflect those of Global Investment Research and are not an official view of Goldman Sachs.

Any third party referenced herein, including any salespeople, traders and other professionals or members of their household, may have positions in the products mentioned that are inconsistent with the views expressed by analysts named in this report.

This research is focused on investment themes across markets, industries and sectors. It does not attempt to distinguish between the prospects or performance of, or provide analysis of, individual companies within any industry or sector we describe.

Any trading recommendation in this research relating to an equity or credit security or securities within an industry or sector is reflective of the investment theme being discussed and is not a recommendation of any such security in isolation.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Investors should review current options and futures disclosure documents which are available from Goldman Sachs sales representatives or at <https://www.theocc.com/about/publications/character-risks.jsp> and https://www.goldmansachs.com/disclosures/cftc_fcm_disclosures. Transaction costs may be significant in option strategies calling for multiple purchase and sales of options such as spreads. Supporting documentation will be supplied upon request.

Differing Levels of Service provided by Global Investment Research: The level and types of services provided to you by Goldman Sachs Global Investment Research may vary as compared to that provided to internal and other external clients of GS, depending on various factors including your individual preferences as to the frequency and manner of receiving communication, your risk profile and investment focus and perspective (e.g., marketwide, sector specific, long term, short term), the size and scope of your overall client relationship with GS, and legal and regulatory constraints. As an example, certain clients may request to receive notifications when research on specific securities is published, and certain clients may request that specific data underlying analysts' fundamental analysis available on our internal client websites be delivered to them electronically through data

feeds or otherwise. No change to an analyst's fundamental research views (e.g., ratings, price targets, or material changes to earnings estimates for equity securities), will be communicated to any client prior to inclusion of such information in a research report broadly disseminated through electronic publication to our internal client websites or through other means, as necessary, to all clients who are entitled to receive such reports.

All research reports are disseminated and available to all clients simultaneously through electronic publication to our internal client websites. Not all research content is redistributed to our clients or available to third-party aggregators, nor is Goldman Sachs responsible for the redistribution of our research by third party aggregators. For research, models or other data related to one or more securities, markets or asset classes (including related services) that may be available to you, please contact your GS representative or go to <https://research.gs.com>.

Disclosure information is also available at <https://www.gs.com/research/hedge.html> or from Research Compliance, 200 West Street, New York, NY 10282.

© 2026 Goldman Sachs.

You are permitted to store, display, analyze, modify, reformat, and print the information made available to you via this service only for your own use. You may not resell or reverse engineer this information to calculate or develop any index for disclosure and/or marketing or create any other derivative works or commercial product(s), data or offering(s) without the express written consent of Goldman Sachs. You are not permitted to publish, transmit, or otherwise reproduce this information, in whole or in part, in any format to any third party without the express written consent of Goldman Sachs. This foregoing restriction includes, without limitation, using, extracting, downloading or retrieving this information, in whole or in part, to train or finetune a machine learning or artificial intelligence system, or to provide or reproduce this information, in whole or in part, as a prompt or input to any such system.