Morgan Stanley | RESEARCH

GLOBAL IDEA

December 16, 2023 12:26 AM GMT

Global Macro Strategist

Top 10 Surprises for 2024

A year without surprises would be a surprise itself. Given every year comes with some, we discuss 10 that would make investors think differently and move global macro markets.

This is our last publication of 2023. Thank you for reading our research and considering our views. We are also very grateful to all those who voted in this year's *Institutional Investor* survey. We wish you the best of luck and health in 2024.

Surprise #1: The elusive US hard landing arrives in style. Fiscal policy accentuates the long and variable lags of monetary policy – both having delayed the start of a US recession in 2023 and making it worse when it arrives in 2024 – prompting the Fed to move "expeditiously" back to neutral.

Surprise #2: Fed cuts 8 times, amid soft landing The Fed focuses on keeping real rates stable to lower as inflation falls. Duration rallies, and the curve flattens vs. forwards, with strong demand for long-dated Treasuries.

Surprise #3: QT ends before the first cut . A deterioration in dealer balance sheet capacity, a higher structural demand for reserves, and/or ongoing bank liquidity needs lead QT to end before the Fed cuts in June.

Surprise #4: BTP/Bund marked tightening into 2024 The diverging paths on supply and PEPP QT call for wider BTP/Bund spreads. We study what could be behind a BTP/Bund spread compression back to early 2022 levels.

Surprise #5: EUR 10s30s bull-flattens We estimate the impact of a sharp deterioration in the macro picture on 10s30s. The slope could return to ~-50bp, which would imply a ~30bp flattening from current levels.

Surprise #6: An earlier-than-expected BoE pivot While the BoE is seen as a potential laggard in easing, the recent momentum in inflation and economic data might support a BoE pivot earlier than expected.

Surprise #7: The JGB curve steepens instead of flattens Consensus expects the JGB curve to flatten once the BoJ enters a normalization cycle. The curve could steepen if the BoJ were to signal to proceed gradually.

Surprise #8: Window for GBP gains An exceedingly low bar for economic data, in addition to cheap asset valuations, and the possibility for increased UK-EU economic cooperation provide the basis for a potentially bullish GBP.

Surprise #9: Drop in Australia and Canada r* pricing Medium-term rate expectations decline below their recent averages due to sluggish productivity, lower trend growth in China, and risks to commodity prices.

Surprise #10: Breakevens revert to 2019 levels TIPS breakevens return to pre-pandemic levels. 5y BEs and the 5s30s BE curve normalize to their 2013-19 averages of 1.75% and 20bp, respectively, leaving 30y BEs at 1.95%.

MORGAN STANLEY & CO. LLC

Matthew Hornbach
Strategist
Matthew.Hornbach@morganstanley.com +1 212 761-1837

Guneet Dhingra, CFA
Strategist
Guneet.Dhingra@morganstanley.com +1 212 761-1445

Andrew M Watrous
Strategist
Andrew.Watrous@morganstanley.com +1 212 761-5287

Efrain A Tejeda, CFA
Strategist
Efrain.Tejeda@morganstanley.com +1 212 761-3529

Francesco Grechi
Strategist
Francesco.Grechi@morganstanley.com +1 212 761-1009

Zoe K Strauss
Strategist
Zoe.Strauss@morganstanley.com +1 212 761-0407

Allen F Liu
Strategist
Allen.Liu@morganstanley.com +1 212 761-6049

MORGAN STANLEY & CO. INTERNATIONAL PLC+

James K Lord
Strategist
James.Lord@morganstanley.com +44 20 7677-3254

David S. Adams, CFA
Strategist
David.S.Adams@morganstanley.com +44 20 7425-3518

Eric S Oynoyan
Strategist
Eric.Oynoyan@morganstanley.com +44 20 7425-1945

Lorenzo Testa
Strategist
Lorenzo.Testa@morganstanley.com +44 20 7677-0337

Fabio Bassanin, CFA
Strategist
Fabio.Bassanin@morganstanley.com +44 20 7425-1869

Marie-Anais C Francois
Strategist
Marie-Anais.Francois@morganstanley.com +44 20 7425-1877

Dominic J Krummenacher
Strategist
Dominic.Krummenacher@morganstanley.com +44 20 7425-9781

MORGAN STANLEY MUFG SECURITIES CO., LTD.+

Koichi Sugisaki
Strategist
Koichi.Sugisaki@morganstanleymufg.com +81 3 6836-8428

Surprise #1: The elusive US hard landing arrives in style

MORGAN STANLEY & CO. LLC

Matthew Hornbach
Matthew.Hornbach@morganstanley.com +1 212 761-1837

Monetary policy is levered to fiscal policy and vice versa

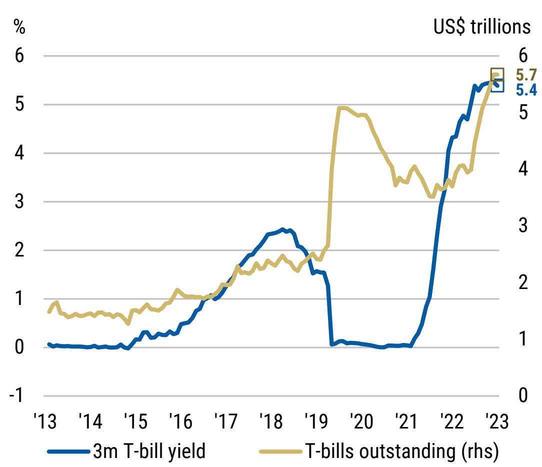
The consensus call for a US soft landing ends up falling into the same trap that ensnared policy makers after the pandemic: an under-appreciation of fiscal policy and its impact on economic activity, as well as its pro-cyclical interplay with the funding of deficits and the setting of monetary policy. Fiscal policy accentuates the long and variable lags of monetary policy – both having delayed the start of a US recession in 2023 and making it worse when it arrives in 2024 – prompting the Fed to move "expeditiously" back to neutral.

The biggest surprise of 2023 wasn't the absence of a US hard landing, but rather the absence of a soft landing as well. Not only did the economy not land, but the landing strip in the distance was just a mirage in the end.

The soft landing narrative always struck investors as a call for "this time is different". The four most dangerous words in finance made it hard to believe without sufficient evidence collected over time – painfully for many. But as the data bucked even the calls for a soft landing, "this time is different" became the unquestioned consensus for the year ahead.

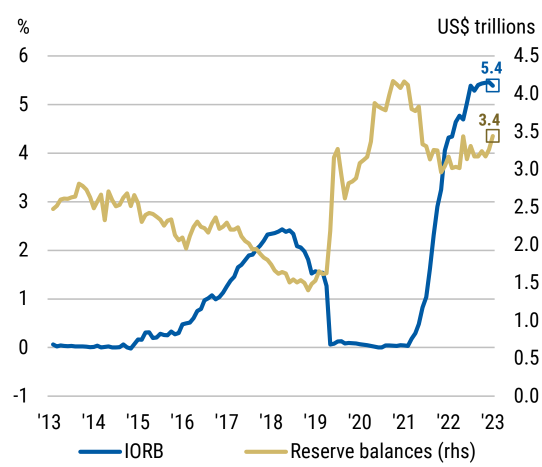
The biggest surprise of 2024 may be that the elusive hard landing finally arrives after all – just after most investors concluded that "this time was different indeed". It took most of the year for the consensus to fully embrace the soft landing narrative – a consistent feature of our base case since 2022. But it won't take that long for investors to kick themselves for having been fooled again.

Exhibit 1: US T-bills outstanding and 3m T-bill yields



Source: Morgan Stanley Research, US Treasury, Bloomberg

Exhibit 2: Reserve balances held at the Fed and interest on reserve balances



Source: Morgan Stanley Research, Federal Reserve, Bloomberg

A combination of fiscal policy and monetary policy could explain the lack of a US economic landing in 2023. And it could also explain why a hard landing unfolds in 2024.

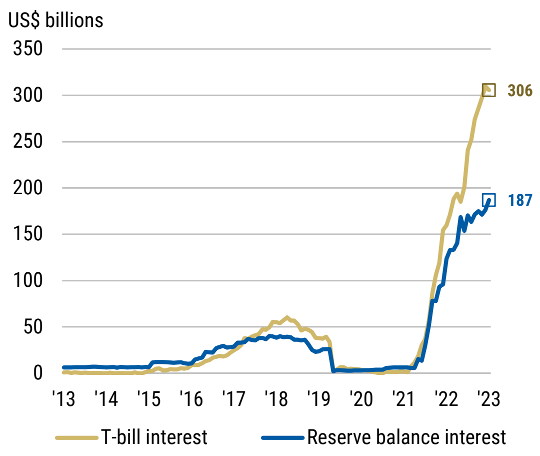
1. The way in which the US Treasury funded the pandemic-related fiscal deficits, with an abundance of T-bill issuance (see Exhibit 1), and
2. the Federal Reserve's aggressive rate-hiking campaign and its payments of interest on large reserve balances (see Exhibit 2)

created a truly "this time is different" combination of fiscal and monetary policy with a pro-cyclical bent. T-bills outstanding are 125% higher than in 2019 and reserve balances are 108% higher.

As a result, even though the Fed's target rate is only 120% higher than it was in 2019, the Fed pays 364% more on reserve balances and the US Treasury pays 406% more interest on T-bills outstanding (see Exhibit 3).

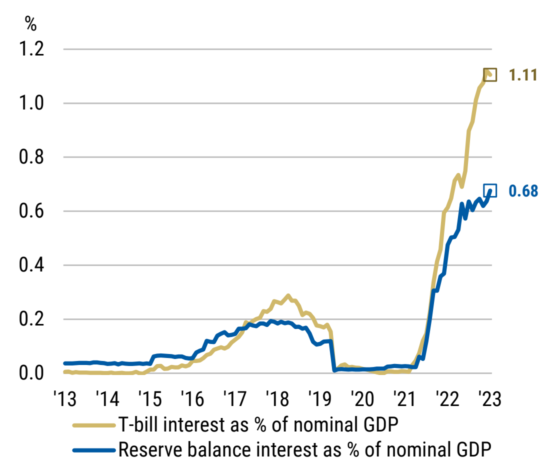
Interest payments on T-bills annualize over 1pp of nominal GDP, and interest payments on reserve balances annualize at just under 0.7pp of nominal GDP (see Exhibit 4). Combined, the Fed and Treasury are adding a minimum of 1.75pp of nominal GDP worth of interest into the economy at the moment.

Exhibit 3: Estimated annualized interest payments from the Fed and US Treasury on reserve balances and T-bills outstanding



Source: Morgan Stanley Research, US Treasury, Federal Reserve, Bloomberg

Exhibit 4: Estimated annualized interest payments from the Fed and US Treasury on reserve balances and T-bills as % of nominal GDP

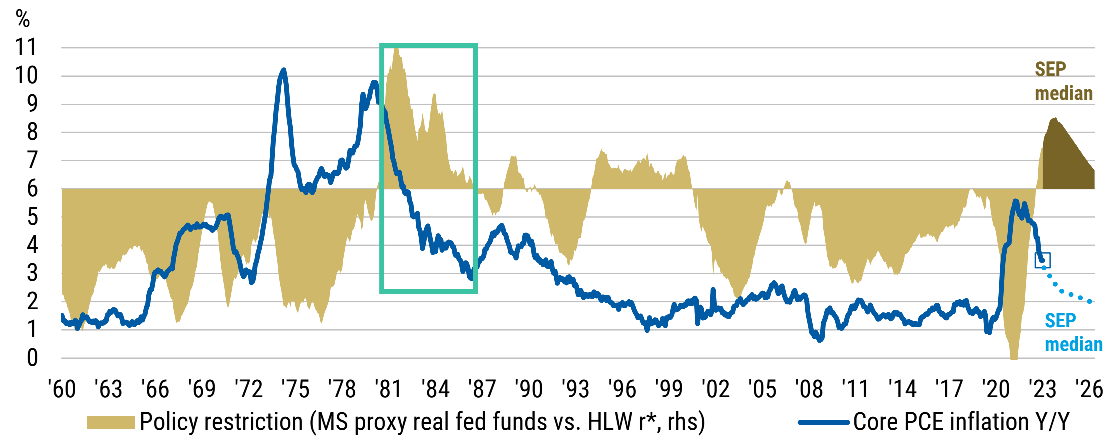


Source: Morgan Stanley Research, US Treasury, Federal Reserve, BEA, Bloomberg

This policy-induced pro-cyclical stimulus joined forces with a mostly neutral stance of monetary policy, in real terms in 2023. Exhibit 5 shows that the average stance of monetary policy over the trailing 12 months moved into restrictive territory in September 2023. Put differently, from August 2022 through August 2023, real monetary policy neither placed upward nor downward pressure on economic activity on average.

However, the economy could face a much tighter stance of policy in 2024 – even without further rate hikes. The FOMC's December 2023 projections for the economy and appropriate monetary policy suggest the tightest stance for policy since Chair Volcker lies ahead. The median projections imply a real stance of policy about ½ as tight as Volcker, but with core PCE inflation ⅓ as high.

Exhibit 5: The stance of monetary policy in real terms: real effective Proxy Fed Funds rate less Holston-Laubach-Williams r* vs. US core PCE inflation Y/Y



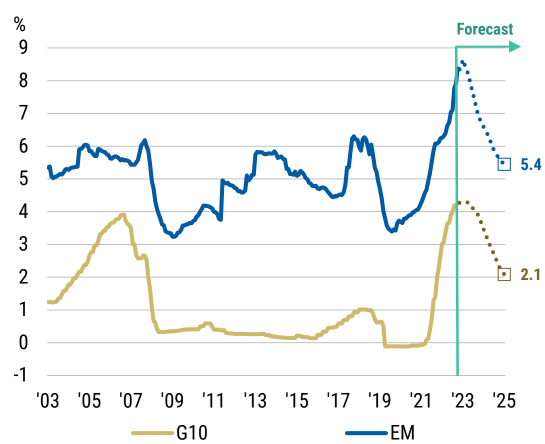
Source: Morgan Stanley Research, Federal Reserve, FRB New York, BEA, Bloomberg

The FOMC projections suggest the average stance of monetary policy reaches its most restrictive by September 2024. Of course, the stance of monetary policy isn't becoming increasingly restrictive in the US alone.

The stance of monetary policy across many emerging and developed market economies should become increasingly restrictive in real terms as well, given policy rates come down more slowly than inflation, on our economist's base case projections (see Exhibit 6).

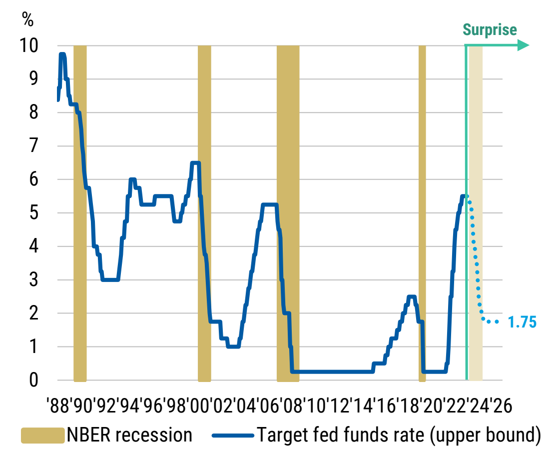
The surprise for 2024 comes in how the combination of increasing policy restraint around the world, the loss of US federal government fiscal policy support, and the heightened uncertainty related to the US general election push the economy into a hard landing.

Exhibit 6: G10 and EM central bank policy rate over past 20 years and Morgan Stanley projections*



Source: : Morgan Stanley Research estimates, National Central Banks, IMF, Bloomberg
* Composite policy rates are weighted by the IMF's GDP based on PPP share of world total

Exhibit 7: Path for the federal funds rate in a surprisingly hard landing for the US economy



Source: Morgan Stanley Research, Federal Reserve, NBER, Bloomberg

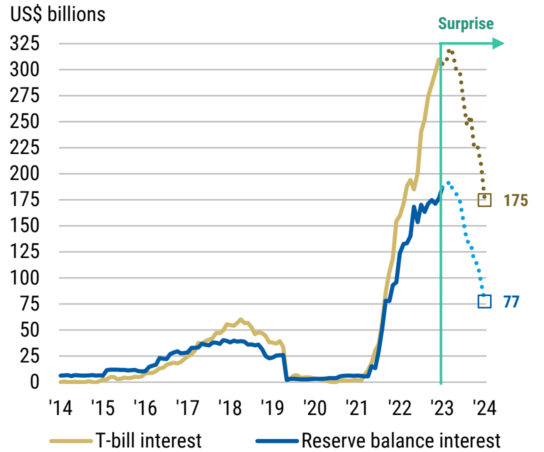
As discussed in The US Election And The Fed, FOMC participants understand how election uncertainty affects business and consumer confidence and related investment and spending decisions. In this surprise, the election exacerbates already falling confidence in corporate boardrooms, leading to reduced business investment, hiring, and more layoffs.

As unemployment claims rocket higher, income and spending growth slows to a standstill and consumer confidence plummets – reducing the marginal propensity to spend out of what excess savings remain. With core PCE inflation having annualized near 2% in 2H23, it annualizes below 2% in 1H24 as peak monetary policy restriction bites harder and fiscal policy support fades.

With core PCE inflation on a Y/Y basis threatening to fall below 2%, at least 18 months before anyone on the FOMC projected, the Fed cuts rates by 25bp at its March 22 meeting. It follows with another 25bp cut at its May 3 meeting. As the growth data more clearly sound the recession alarm, the Fed begins easing in 50bp increments at each of the remaining meetings in 2024.

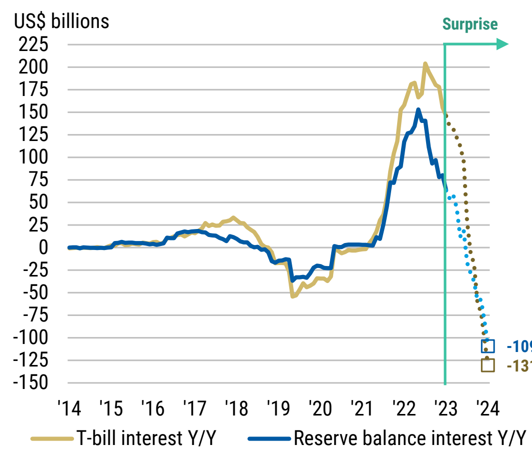
The target range returns to neutral, i.e., 2.25-2.50%, in December, but the economy remains mired in weakness. What supported the economy as the Fed hiked rates – interest income on T-bills and reserve balances – begins to drag on it, as interest payments go negative on a Y/Y basis (see Exhibit 8 and Exhibit 9).

Exhibit 8: Estimated annualized interest payments from the Fed and US Treasury on reserve balances and T-bills outstanding, and surprise scenario*



Source: Morgan Stanley Research, US Treasury, Federal Reserve, Bloomberg
* The surprise scenario incorporates the surprise path for the federal funds rate and our base case for T-bill supply outstanding and reserve balances

Exhibit 9: Estimated annualized interest payments from the Fed and US Treasury on reserve balances and T-bills outstanding, Y/Y change in USD, and surprise scenario*



Source: Morgan Stanley Research, US Treasury, Federal Reserve, Bloomberg
* The surprise scenario incorporates the surprise path for the federal funds rate and our base case for T-bill supply outstanding and reserve balances

The Fed continues to lower rates in 2025, but reverts to its 25bp/meeting pace – similar to its more gradual approach in 2019. By May 2025, the target fed funds range returns to its setting immediately preceding the start of the COVID-19 pandemic: 1.50-1.75% – metaphorically bringing to an end an unforgettable chapter in our lives.

Surprise #2: Fed cuts 8 times, amid soft landing

MORGAN STANLEY & CO. LLC

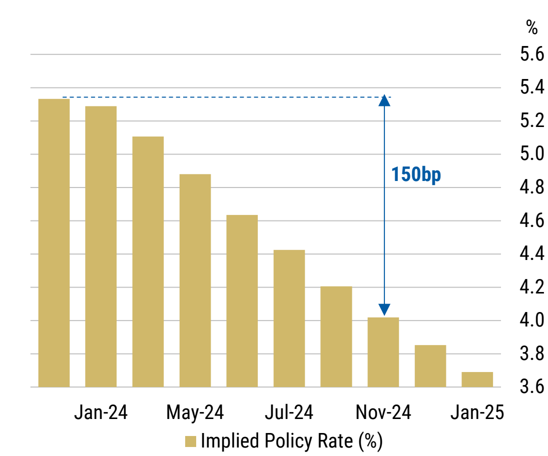
Guneet Dhingra, CFA
Guneet.Dhingra@morganstanley.com
+1 212 761-1837

Fed cuts 8 times, amid soft landing

The economy achieves a soft landing in 2024, in line with our economists, as inflation stabilizes near 2% PCE and growth remains modestly positive. Yet, the Fed delivers 8 cuts worth 200bp in 2024 to lock the soft landing and take the fed funds closer to "neutral". A sharp duration rally amid a soft landing surprises rates investors, but the surprise is compounded by a bull flattening of the curve as pent-up demand dominates the long-end in a quest to "lock in" high-yield levels for longer.

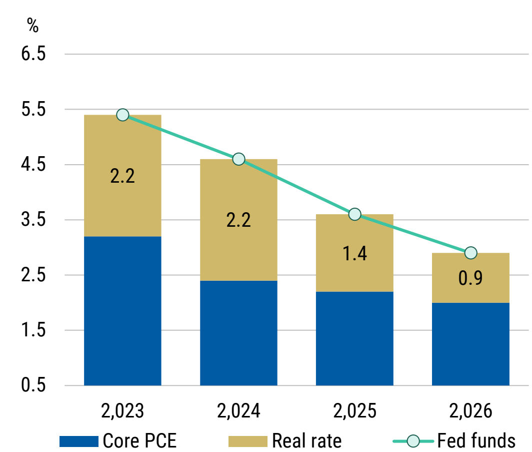
The fabled "soft landing" finally arrives in 2024, with core PCE stable around 2%, and modest growth - in line with our US economics team. While the Fed has already opened to door to rate cuts at the December FOMC meeting, the fed ends up delivering 8 cuts in 2024 - much more than in the latest dot plot (3 cuts) and even more than what markets currently price - around 6 cuts in 2024 (see Exhibit 10).

Exhibit 10: Current market pricing of fed funds path



Source: Bloomberg, Morgan Stanley Research

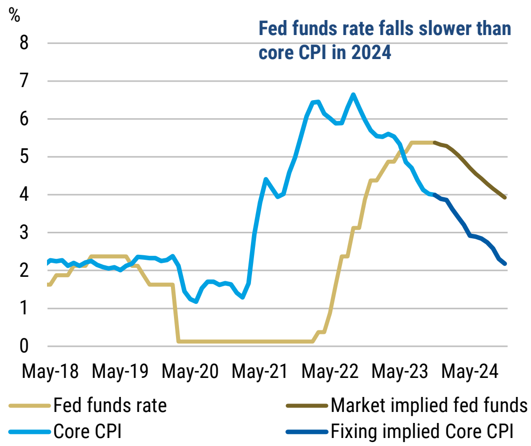
Exhibit 11: December FOMC dot plot implied real and nominal fed funds rates



Source: Bloomberg, Fed, Morgan Stanley Research

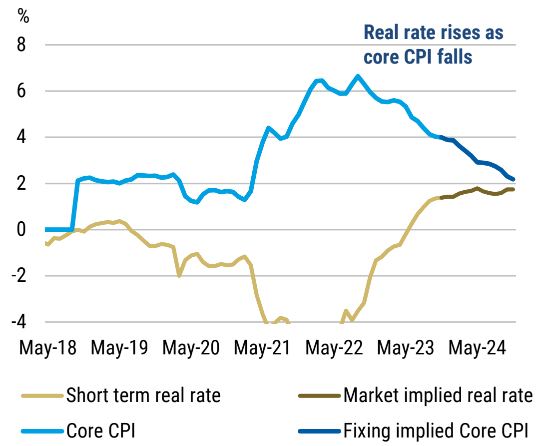
The Fed clarifies that "higher for longer" was meant to be understood as "higher real rates for longer", and thereby uses the decline in inflation as the guiding light for cutting policy rates in 2024, aiming for real rates to stay unchanged or lower from the late 2023 levels. With core CPI expected to drop by around 180bp according to CPI fixings, merely keeping real fed funds rates steady would need 8 cuts, and that's assuming that the Fed does not want real rates to be lower.

Exhibit 12: Fed funds rate vs. core CPI implied by fixings in the next 12 months



Source: Bloomberg, BGC, Morgan Stanley Research estimates

Exhibit 13: Market-implied real rates



Source: Bloomberg, BGC, Morgan Stanley Research estimates

The market reaction to 8 cuts is should, in theory, be a bull steepening of the curve. However, another layer of surprise in 2024 is that the yield curve bull flattens instead. Such bull flattening can result from multiple channels - (1) curve steepeners being a high consensus trade, (2) real money investors look to quickly cover duration underweights by adding the very long-end, (3) yield grab from retail investors - giving up bank deposits or t-bills for "locking in" high yields on longer maturities.

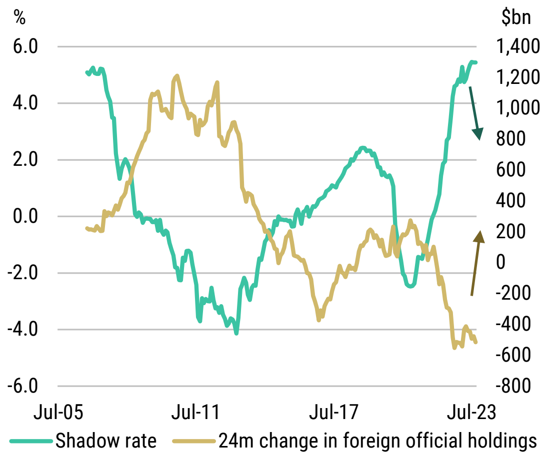
Besides, with 6 cuts priced in, the carry on the front-end is punitive for making total returns, while the long-end has a much easier carry profile - increasing the attractiveness of the long-end. Finally, as we noted in our section of the year-ahead outlook, Macro will bring the buyers, we expect renewal of demand from US banks, overseas official buyers, households, and hedge funds - all set to show up next year.

More specifically, demand from foreign officials has been held back over recent months as higher rates and richer dollar over most of the last ten years have created downward pressure on other currencies, and created more incentives for foreign officials to sell rather than buy Treasuries (see Exhibit 14).

Similarly US banks have been net sellers of Treasuries amid fleeing deposits and positive loan growth – which could change as lower rates decrease deposit flight, while loan growth slows (see Exhibit 15).

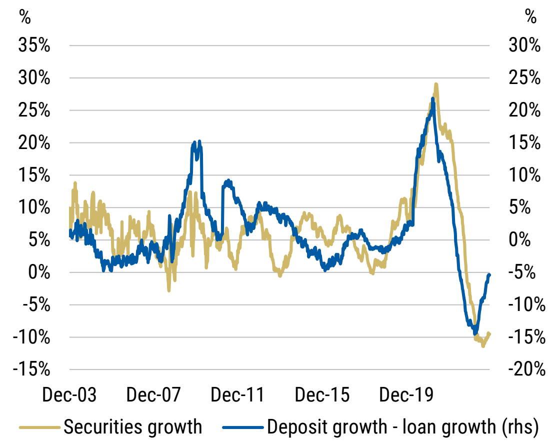
All of these buyers could prefer longer duration over shorter as the front end looks more fully priced, allowing the curve to bull flatten.

Exhibit 14: Foreign official buying flows for US Treasuries vs. the shadow rate in the US



Source: Bloomberg, Morgan Stanley Research

Exhibit 15: US banks' securities growth relative to deposit minus loan growth



Source: Bloomberg, Morgan Stanley Research

Surprise #3: QT ends before the first cut

MORGAN STANLEY & CO. LLC

Efrain Tejeda, CFA
Efrain.Tejeda@morganstanley.com
+1 212 761-3529

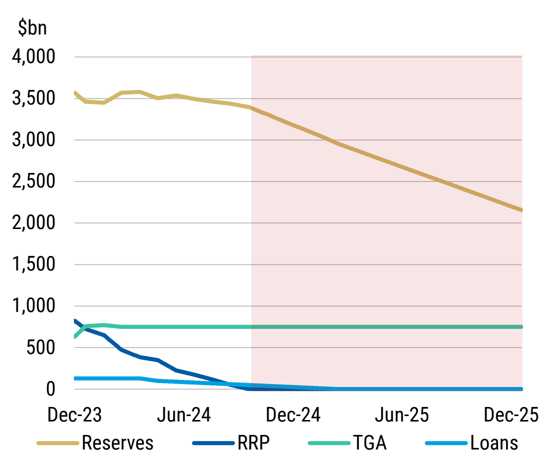
Unexpected funding stress leads Fed to scrap its QT plans

Tail risks to funding in the form of dealer intermediation constraints, a faster-than-expected RRP decline as the structural demand for bank reserves increases even further, and/or the expiration of the BTFP lead the Fed to abruptly end QT before the Fed is able to cut. In addition, in contrast with 2019, SOFR is now the reference rate used to price all loans and securities, limiting how much SOFR volatility the Fed and markets can afford this time around.

Tail risks materialize for funding conditions and market functioning, leading the Fed to abandon its balance sheet reduction plans before the rate cut in June (our US economists' base case). Today, comments from Fed officials, including Chair Powell, continue to reflect a high degree of comfort with QT. In addition, the latest survey of market participants shows that median expectations for the end of QT are at 2Q25, with the 25/75th at 4Q24 and 4Q25, respectively.

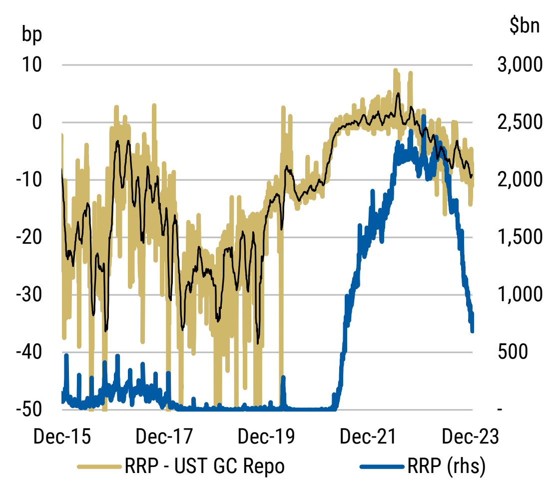
As discussed in Life After the RRP, our base case is for the Fed to taper QT in September and for the balance sheet to stop declining in early 2025. This leaves material risks to funding rates, proper functioning of the repo market, and effective implementation of monetary policy still some time away (3Q24 and onwards, see Exhibit 16). However, three separate tail risks materialize in the first half of 2024 (individually or altogether) that surprise the Fed, investors, and our own forecast.

Exhibit 16: Forecast of key Fed balance sheet items (QT ongoing)



Source: Fed H.4.1. release, Morgan Stanley Research forecast

Exhibit 17: RRP - UST GC repo spread and RRP balance over the past years

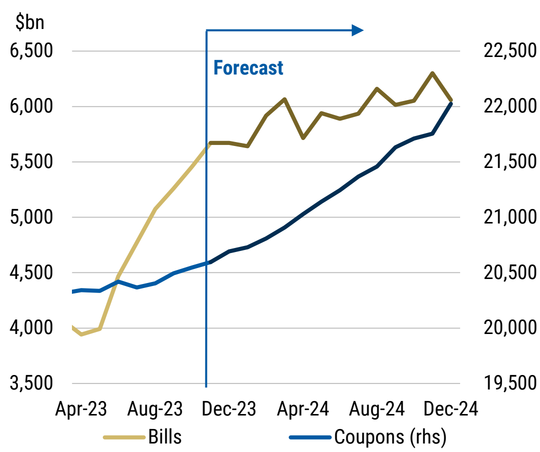


Source: Bloomberg, Morgan Stanley Research

First, as we discussed in 2019? Not Yet, SOFR remains on a gradual path higher thanks to the RRP. As shown in Exhibit 17 , the RRP has been very responsive to higher repo rates. This keeps a lid on how high SOFR can go until the RRP is depleted. However, the ability of dealers to intermediate the repo market (borrow cash in the RRP to lend it to investors) becomes disrupted starting in mid 1Q24 and onwards as bill supply re-accelerates and coupon supply remains robust (Exhibit 184). This impairs the ability of the RRP to meet surges in demand for financing.

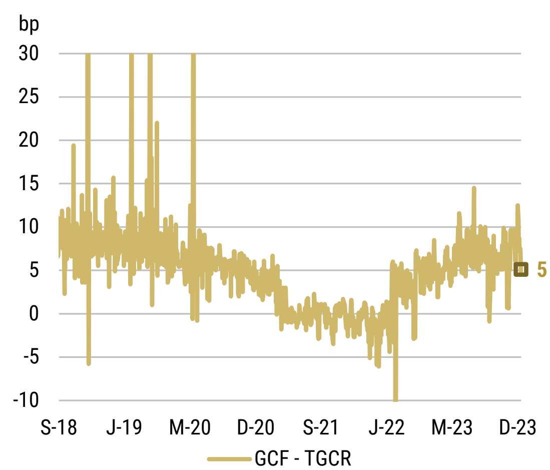
As dealer balance sheets become clogged due to continuous UST supply and more repo demand, the cost of intermediation skyrockets. This leads the GCF - TGCR spread to increase to 25bp+ around month-end and large net UST settlements (Exhibit 19), leading spikes in SOFR to become more significant over the coming months. These balance sheet pressures and the resulting higher cost of financing then push leveraged investors to unwind cash-futures basis trades, magnifying the stress in the repo market.

Exhibit 18:4 UST outstanding in 2024



Source: US Treasury, Morgan Stanley Research forecast

Exhibit 19: GCF - TGCR spread

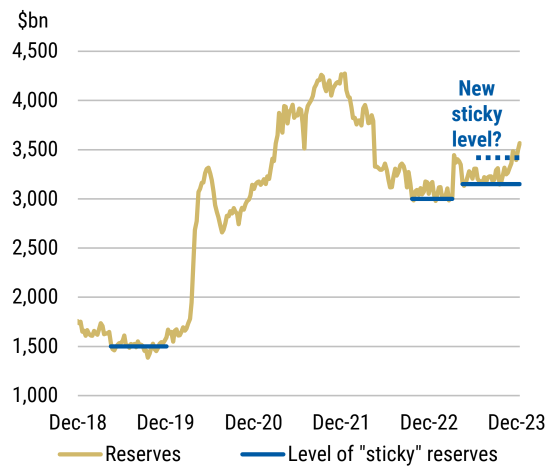


Source: Bloomberg, Morgan Stanley Research

Second, the structural demand for bank reserves increases further in 1H24 as banks continue to lose non-interest-bearing deposits. This would likely motivate banks to retain more liquidity, keeping reserves sticky at a higher level closer to today's ~$3.5tr (Exhibit 20). This would lead the RRP to be depleted before our base case of 3Q24 (March - May), making banks the marginal lenders in repo sooner than expected.

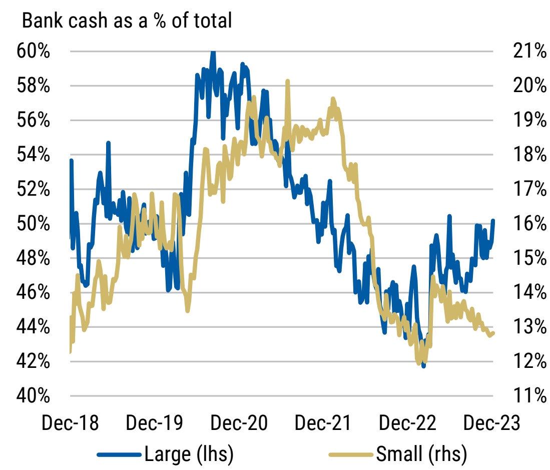
At the same time, a higher structural demand for reserves will limit the willingness and ability of banks to lend cash siting at the Fed earning IORB (5.4%), causing spikes in SOFR and subsequent funding stress. In addition, the unequal distribution of reserves (which is already at worse levels vs. 2018/2019) deteriorates further (Exhibit 21). This will magnify tail risks for funding as small banks also increase their demand for reserves, pushing both SOFR and EFFR higher.

Exhibit 20: Bank reserves at the Fed and observed levels of "sticky" reserves



Source: Fed H.4.1 release, Morgan Stanley Research

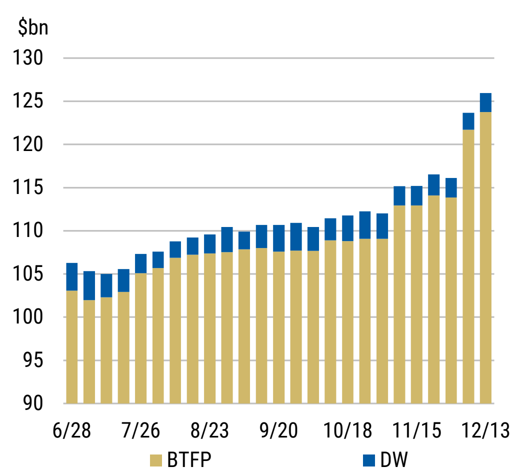
Exhibit 21: Distribution of total bank cash or large and small banks



Source: Fed H.4.1 release, Morgan Stanley Research

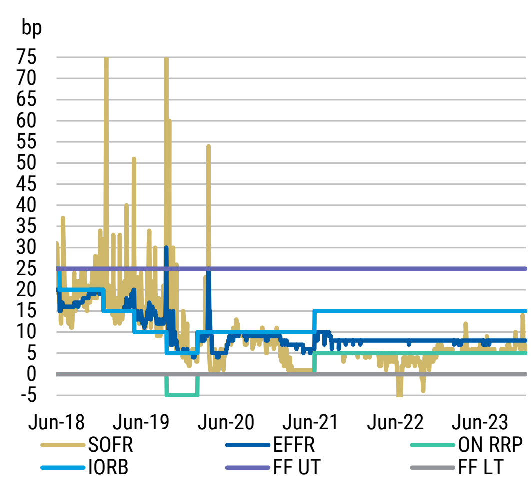
Third, a threat for the Fed's QT plans emerges outside the repo market as the Fed is unable to justify the extension of the BTFP (created thanks to Section 13(3) of the Federal Reserve Act as an emergency lending program) after March and bank liquidity pressures continue mount, leading to a new round of bank stress in 2Q24. Over the past 6 weeks, the BTFP a has increased by $14bn. setting a new record high of $126bn (Exhibit 22).

Exhibit 22: BTFP and discount window loans



Source: Fed H.4.1 release, Morgan Stanley Research

Exhibit 23: SOFR/EFFR within the target range



Source: Federal Reserve, Morgan Stanley Research

Lastly, in contrast with 2019, SOFR is now the reference rate used to price all floating rate loans and securities, potentially limiting how much SOFR volatility the Fed and markets can afford this time around. During the first round of QT, the Fed was able to ignore increasing signs of dwindling liquidity in repo markets as reflected by SOFR prints above the upper target (where the Standing Repo Facility is at today) as shown in Exhibit 23 .

To capture the possibility of unexpected funding stress in 1H24 and an abrupt end to the Fed's QT plans, investors can position in 2y10y SOFR swap spread steepeners (short 2y SS, long 10y SS). This trade will benefit as 2y swap spreads are more sensitive to funding conditions and should tighten more relative to 10y.

In addition, a sudden end to QT should contribute to strong demand for long-end Treasuries, allowing 10y swap spreads to widen relative to 2y. This trade also has better carry vs. being outright short 2y swap spreads , particularly when considering how much is already priced in 1m SOFR/FF futures for next year. For instance, SERFFX4 (1m SOFR/FF for Nov. 2024) is already at -5.5bp vs. a realized average SOFR/FF of -4bp in 2019.

Surprise #4: BTP/Bund marked tightening into 2024

MORGAN STANLEY & CO. INTERNATIONAL PLC

Eric Oynoyan
Eric.Oynoyan@morganstanley.com +44 20 7425-1837

Lorenzo Testa
Lorenzo.Testa@morganstanley.com +44 20 7425-3842

Marie Anais Francois
Marie-Anais.Francois@morganstanley.com +81 3 6836-8428

10y BTP-Bund sub 130bp by Q4 24

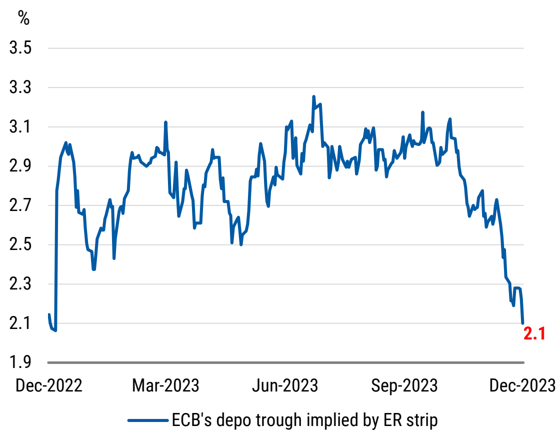
The ECB decides to start its depo normalisation process towards the 2% neutral rate earlier than expected. Eurozone data stabilize and even improve into 1H24 in Italy. Non-resident investors, reassured by the soft landing scenario and the early ECB reaction, again become buyers of BTPs, offsetting a structural underweight positioning held since summer 2021. Using the outputs from our BTP/Bono model under the scenario of volatility remaining very low on risky assets, a more subdued decline in excess liquidity, and around EUR 75bn of renewed buying from non-resident investors in 2024, the path on the BTP/Bono spread would imply a 10y BTP/Bund spread falling gradually towards and below 130bp by Sep 2024.

The market narrative is that Europe is heading into a material growth slowdown and on this premise, the general expectation of the market, is that the periphery would likely underperform as, at least in the earlier stages of a recession, credit would trade at a significant discount relative to duration.

In addition to the aforementioned expected macro backdrop, other factors such as high yield pressures stemming from heavy issuance expectations and further ECB balance sheet normalization, are behind the expected widening thesis.

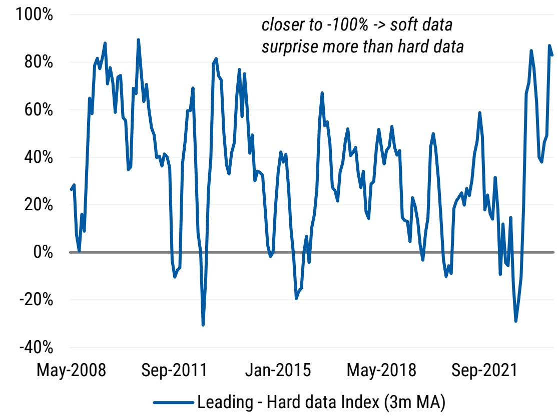
Nevertheless, does this assumption still make sense if the ECB achieved its soft-landing? The market pricing at the front-end has promptly shifted towards pricing a faster re-convergence towards neutral rate recently (see Exhibit 24) - now expected to be achieved by June 2025 at the latest, while leading economic indicators have been consistently outperforming hard data releases since the summer (see Exhibit 25).

Exhibit 24: Implied ECB deposit rate trough, as priced by Euribor futures



Source: Bloomberg, Morgan Stanley Research

Exhibit 25: European leading economic data surprised hard data releases

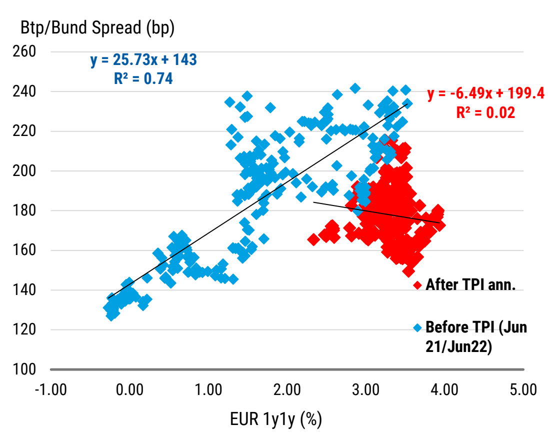


Source: Bloomberg, Morgan Stanley Research

By these standards, this mix seems to imply a less grim growth outlook than previously expected, and as the ECB eases, the potential strains of higher yields with growth not falling markedly, mean risk should be supported. With that, the outlook for peripheral spreads should not imply a sustained widening, as previously thought, at least when looking at recent market correlations.

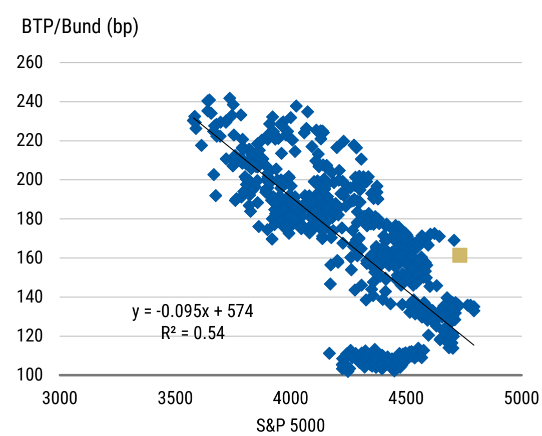
Indeed, the 10y BTP/Bund spread since the summer of 2021 has somehow decoupled from the level of rates (see Exhibit 26) trading much more in line with the performance of risk in general (see Exhibit 27).

Exhibit 26: BTP/Bund vs 1y1y rate



Source: Bloomberg, Morgan Stanley Research

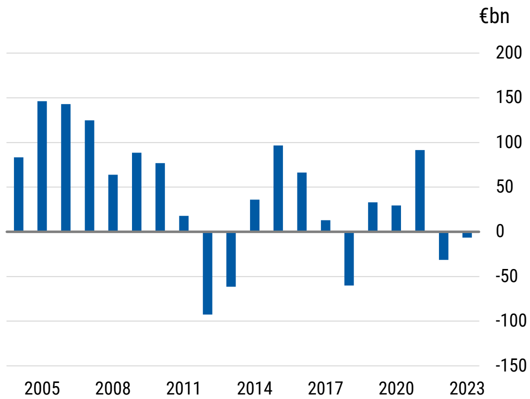
Exhibit 27: BTP/Bund vs Equities



Source: Bloomberg, Morgan Stanley Research

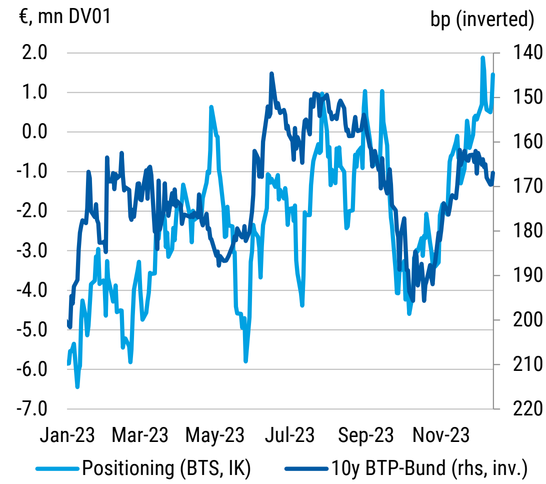
As such, as the ECB endorses a more benign environment for the performance of riskier assets, and as both real money and non-foreign investors are substantially underweight the periphery, BTPs could shine. This would likely occur as rates volatility decreases and investors get back into higher yielders and carry products, particularly BTPs as **(i)** positioning is flat/underweight (see Exhibit 28 and Exhibit 6) and **(ii)** investors become reassured by the ECB's easing cycle, moderating any debt sustainability concerns.

Exhibit 28: Cumulative 3y rolling non residents' BTP buying



Source: BoI, Bloomberg, Morgan Stanley Research

Exhibit 29: BTS/IK positioning vs 10y BTP/Bunds levels

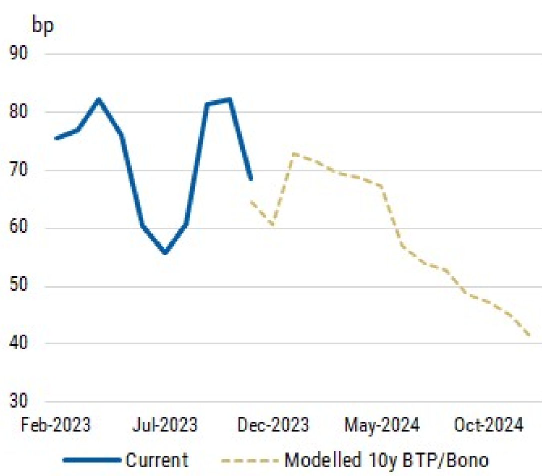


Source: Eurex, Morgan Stanley Research

So what would lead the BTP/Bund to trade again in the 115bp/130bp range, as in the pre-2022 era? We set this target on the 10y BTP/Bund spread, changing the underlying variables behind our BTP/Bono model through which we usually derive the BTP path vs Bunds. We discovered that in order to see this compression move we would need:

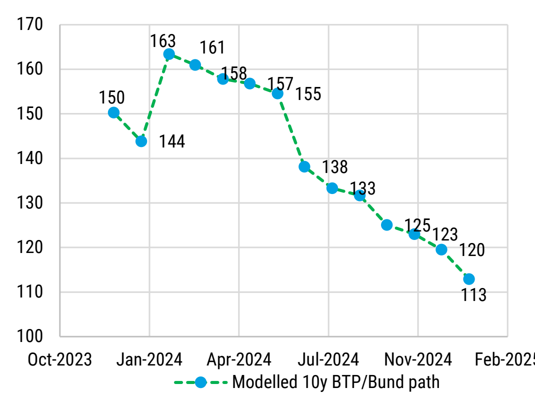
- Flat to lower volatility on risky assets, with implied vol on Eurostoxx remaining firmly around ~11%.
- Non residents' 2024 cumulative buying hovering around ~€75/80 bn. Historically, the magnitude of this flow since 2006 has been coincident with some sort of front running QE expectations from foreign investors. It has been observed in 2009 (~ €69.4bn) and 2014 (~€71.5bn).

Exhibit 30: Modelled path on 10y BTP/Bono



Source: Bloomberg, Morgan Stanley Research estimates

Exhibit 31: Modelled path on 10y BTP/Bund



Source: Bloomberg, Morgan Stanley Research estimates

On this premise, the expected modelled path on the 10y Italy vs Spain implies a ~30bp compression towards 40bp by end of 2024, while on Italy vs Bund, such modelling assumptions push the 10y spread above 130bp as soon as 3Q24 and by 113bp by end of 2024.

Surprise #5: EUR 10s30s bull-flattens

MORGAN STANLEY & CO. INTERNATIONAL PLC

Eric Oynoyan
Eric.Oynoyan@morganstanley.com +44 20 7425-1945

Lorenzo Testa
Lorenzo.Testa@morganstanley.com +44 20 7677-0337

Marie-Anais Francois
Marie-Anais.Francois@morganstanley.com +44 20 7425-1877

EUR 10s30s bull-flattens amid a hard landing

Throughout 2023, and as the ECB likely embarks on its easing cycle next year, one of the most consensus trades has been - and will likely remain - EUR 10s30s steepeners. However, such scenario is heavily contingent on the absence of a hard landing or risk-off, especially when a return of the ECB depo to 2% is already priced in.

We estimate the potential impact of a sharp deterioration of the macro picture on EUR 10s30s (vs. 6m) by stressing the variables in our model. The slope could return to ~-50bp which would imply a ~30bp flattening from current levels.

Additionally, the recent flattening of whites/reds, a historically low equity volatility, and the positioning in 10s30s steepeners, increases the risk of a bull-flattening of EUR 10s30s in a hard landing scenario, in our opinion.

Throughout 2023 and as the ECB likely embarks on its easing cycle next year, one of the most consensus trade has been and will likely remain EUR 10s30s steepeners. The trade is attractive from (i) a macro perspective, with no major economic shock on the horizon and central banks set to start normalizing monetary policy, (ii) a valuation perspective, as 10s30s remains historically markedly inverted and flags as 14bp flat on our model (i.e., 2 standard deviations), and (iii) historical analysis suggests 10s30s tends to steepen during ECB plateaux.

Such scenario is nonetheless heavily contingent on the absence of a hard landing or risk-off… Our 10s30s model factors in equity and swaption implied volatilities, but also ECB pricing with the 1s2s slope and to a lesser extent the 2s5s slope. In the event of a sharp deterioration in macro data, with a deep recession looming, instinctively one would expect 1s2s to flatten, while implied volatilities should rise, with both variables exercising opposite forces on 10s30s. So all in all, the impact of a risk-off on 10s30s might not be that straightforward.

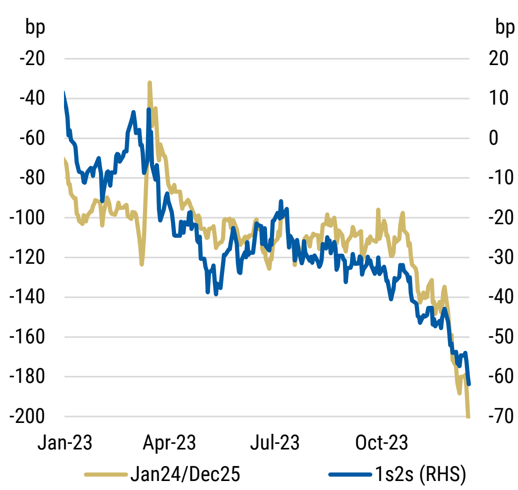
… especially when a return of the ECB depo to 2% is already priced in. In a matter of three weeks, Dec23/Dec24 flattened from ~-80bp to -150bp in OIS, and Dec25 rallied 70bp, pricing an ECB depo close to 2% by summer 2025 (see Exhibit 32). 1s2s also flattened, which made the fair value of our model rise alongside a decline in equity and swaption volatility, explaining the current dislocation. Needless to say that in a risk-off, markets could price more than 200bp cuts and a depo rate below the apparent neutral level of 2%; however, the risk of a sharp repricing is less likely than a few months ago.

In two past ECB cycles, 10s30s actually bull-flattened between the last hike and the first cut. The table in Exhibit 33 shows the level of different slopes and 10y swap yields at the end of the hiking cycle (for the full analysis see Land Of Confusion). The three- and six-month changes are also reported in addition to the variation in slopes between the peak in rates and the first cut. For the current cycle, we also report the change in slopes implied by six-month forwards (mid-March 2024).

As illustrated in Exhibit 33 , during the ECB plateaux of 2007 and 2011 (i.e. between the last hike and first cut), 10s30s flattened at some point amid volatility events linked to the GFC on the one hand and the sovereign crisis on the other hand. The timing was different; in the 2007 cycle, 10s30s initially steepened in the first six months post the last hike to eventually flatten, whereas in the 2011 cycle, 10s30s flattened in the six months post hike with the Eurostoxx down more than 40% during that period.

Simultaneously, 1s2s was flattening while 2s5s price action was less homogeneous, with a flattening in the 2011 plateau but a steepening late in the 2007 plateau, alongside a flattening of 10s30s. Notable differences between these cycles and the current one are the levels of 1s2s, 2s5s and 10s30s slopes when the terminal rate was reached, with the latter being more inverted in the current cycle.

Exhibit 32: In a matter of three weeks, Dec23/Dec24 flattened from ~-80bp to -150bp and Dec25 rallied 70bp



Source: Bloomberg, Morgan Stanley Research

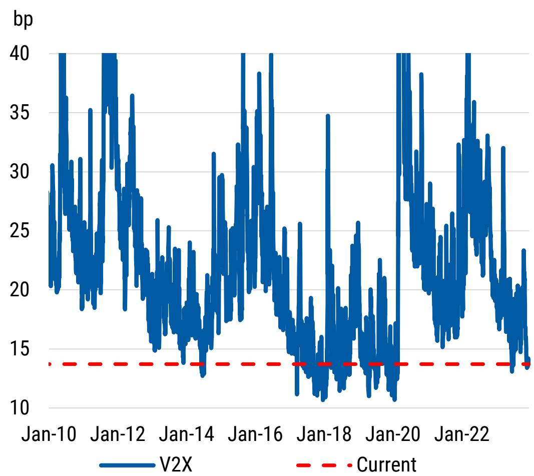
Exhibit 33: Change in EUR swap slopes between the last hike and the first cut

CYCLES	1991	2000	2007	2011	Current	Average	Median
1s2s							
Level at peak		**5**	**9**	**18**	**-34**		
3m Δ		-5	-26	-27		-19	-26
6m Δ		-3	-32	-29	-9*	-21	-29
Δ vs. first cut		-6	-38	-28		-24	-28
2s5s							
Level at peak	**-36**	**22**	**2**	**59**	**-50**		
3m Δ	-8	14	-3	-12		-2	-6
6m Δ	-7	18	-9	-15	21*	-3	-8
Δ vs. first cut	25	10	25	-15		11	18
10s30s							
Level at peak		**26**	**8**	**36**	**-32**		
3m Δ		17	8	-17		3	8
6m Δ		24	13	-23	9*	5	13
Δ vs. first cut		21	-22	-8		-3	-8
5s10s30s							
Level at peak		**1**	**-1**	**25**	**22**		
3m Δ		-1	-3	14		3	-1
6m Δ		-2	-4	28	5*	7	-2
Δ vs. first cut		2	61	7		24	7
10y							
Level at peak	**8.52**	**5.84**	**4.72**	**3.39**	**3.14**		
3m Δ	28	-57	-9	-80		-30	-33
6m Δ	0	-54	-11	-101		-42	-33
Δ vs. first cut	-99	-48	-41	-91		-70	-69

Source: Bloomberg, Morgan Stanley Research

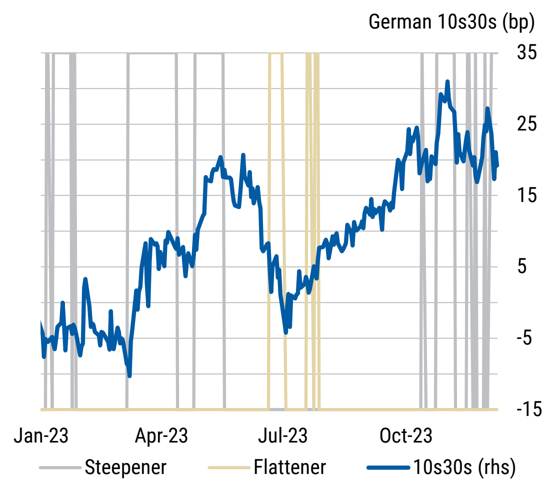
In addition to the recent flattening of whites/reds, a historically low equity volatility and the positioning in 10s30s steepeners make the case for bull-flattening of 10s30s in a hard landing scenario even more compelling. Equities have performed relatively well with, for instance, Eurostoxx 50 posting a ytd performance of ~18%. This had led to a decline in equity volatility; V2X currently trades at 13.2%, which is a relatively subdued level compared to history, as shown in Exhibit 34 . It sits in the 5th percentile over a one-year horizon and the 10th percentile since early 2008. Given the extreme cheapness of implied volatility, the repricing of equities and volatility might be exacerbated in a risk-off, in our opinion.

Exhibit 34: V2X trades at 13.2%, which is relatively subdued level compared to history



Source: Bloomberg, Morgan Stanley Research

Exhibit 35: The market is positioned in steepeners in futures but also likely in swaps



Source: Eurex, Morgan Stanley Research

Additionally, in line with the consensus view on 10s30s, the market is positioned in steepeners in futures but also likely in swaps. Exhibit 35 shows agents' positioning in the Bund/Buxl (Eurex data) and highlights when positioning suggests investors are into 10s30s flatteners, steepeners or neutral. Notably, for most of the year positioning was neutral or in steepeners, with a clear increase in occurrence of steepeners positioning since October. The risk is thus skewed to a flattening of that section of the curve, both in Germany and swaps.

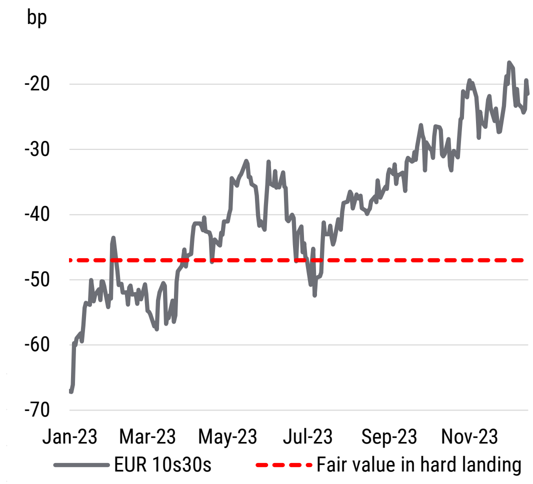
Quantitative input - by how much could 10s30s flatten should the macro picture deteriorate sharply? To estimate the potential impact of such a scenario on EUR 10s30s, we stress the variables of our 10s30s daily model. Exhibit 36 shows the inputs as well as the new derived fair value. Given 1s2s is already very inverted post Fed, we keep the current level but assume a flatter 2s5s (-60bp). Volatilities are bumped to 30% for Eurostoxx vol and 100bp for the 2y30y normal volatility.

Exhibit 36: 10s30s could flatten back to -47bp in case of a hard landing…

Scenario: hard landing			
Variables	**Input**		**EUR 10s30s**
ECB exp	-60	**Observed (bp)**	-21.5
Eurostoxx Vol	30	**Current Fair Value**	-5.4
EUR 2s5s	-60	**New Fair Value**	**-47.4**
Excess liquidity	3500	**Chg in FV**	**-42.0**
EUR 2y30y normal Vol	100	**Obs. vs new FV**	-25.9
		New z-score	-3.5

Source:Morgan Stanley Research estimates

Exhibit 37: … which would take us up back to this summer's or early 2023 levels



Source: Bloomberg, Morgan Stanley Research

In this context, the fair value declines to -47bp, which would imply a ~30bp flattening from current levels and a change in fair value of 40bp - as the slope is trading too flat at the moment according to our model. This would mean a return to this summer's levels before the significant bear-steepening (see Exhibit 37). In a risk-off, the flattening could be even more marked amid a steepening of 1s2s, as markets would likely price bigger and faster cuts.

Surprise #6: An earlier-than-expected BoE pivot

MORGAN STANLEY & CO. INTERNATIONAL PLC
Fabio Bassanin
Fabio.Bassanin@morganstanley.com
+44 20 7425-1869

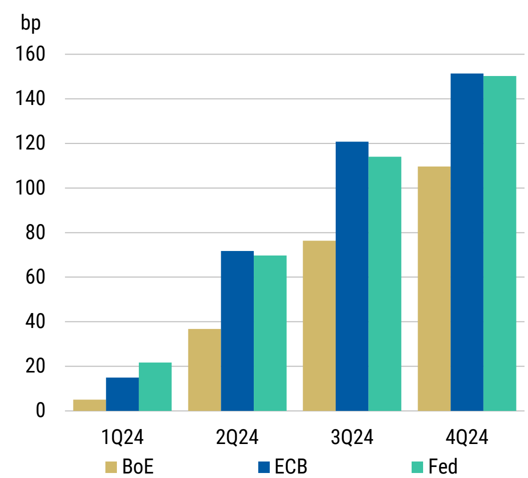
A dovish pivot from the BoE could surprise the market in early 2024

The BoE is seen as a potential laggard in easing compared to the ECB and Fed, with less cuts being priced in 2024 and a later start of the easing cycle. While this consensus view has been supported by several factors, investors might underestimate the most recent momentum in inflation and economic data - as well as the delayed impact of monetary policy tightening, which might support a BoE pivot earlier than expected.

While over recent sessions the market has readjusted the BoE easing expectations higher, on the back of softer-than-expected wage growth and activity data, the BoE is still seen as a potential laggard in easing when compared to the ECB and Fed, with less cuts being priced in 2024 and a later start to the easing cycle.

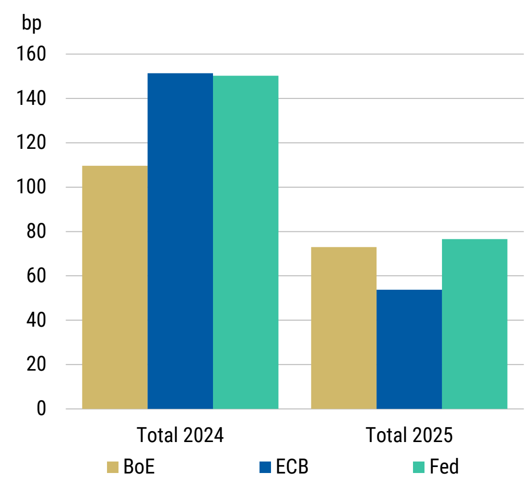
After a remarkable rally in duration over the past week, the market currently sees the BoE delivering ~110bp of cuts during 2024 while a full 25bp cut is almost priced in for May 2024 (see Exhibit 38 and Exhibit 39).

Exhibit 38: Cumulative cuts priced in 2024 point to a later start of the BoE's easing cycle compared to the ECB and Fed



Source: Bloomberg, Morgan Stanley Research

Exhibit 39: With the market currently pricing in ~110bp of cuts in 2024 and ~180 in the next two years



Source: Bloomberg, Morgan Stanley Research

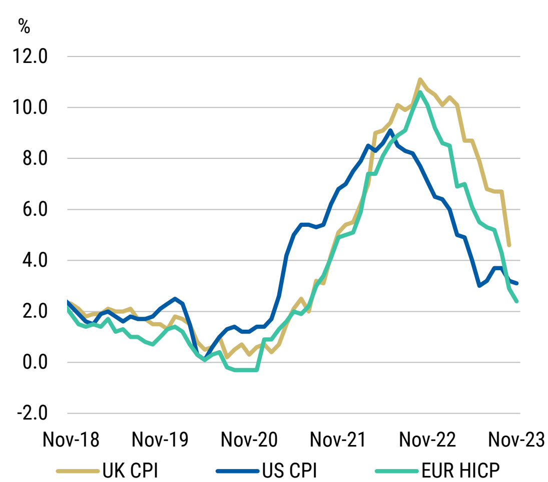
Easing expectations are still low when compared to Fed and ECB ones, and several factors have supported this market consensus view. Among the main reasons - the market has been particularly concerned by **1) the high level of inflation**, **2) the tightness of the UK labour market** which might support core inflation remaining sticky, and **3) the somewhat more resilient UK economy over the past year**, casting doubt on whether **monetary policy is working effectively**.

Most recently, the Autumn Statement has renewed concerns that fiscal policy might act against monetary policy, ahead of the upcoming elections, posing risks to the evolution of the Bank Rate. While we reckon the above concerns have been rational, we think different factors might come into play and surprise market expectations, with the BoE cutting rates earlier and deeper than current expectations, and thus a dovish pivot from the BoE coming in early 2024.

Inflation dynamics. UK inflation is falling rapidly after having peaked at 11.1 %Y in October 2022 and reaching 4.6 %Y in October 2023. A further decline in headline inflation is expected in November 2023 with consensus currently seeing the headline reading at ~4.3%. The market however has been particularly concerned by the higher level of inflation compared to the US (at 3.1 %Y in November 2023) and the euro area (at 2.4 %Y in November 2023). Although this remains the case, inflation spiked higher in the UK in 2022 (especially compared to the US) as the country has been historically more exposed to energy price shocks, and headline inflation seems to be following the other DM countries' downward path - though with a lag (see Exhibit 40).

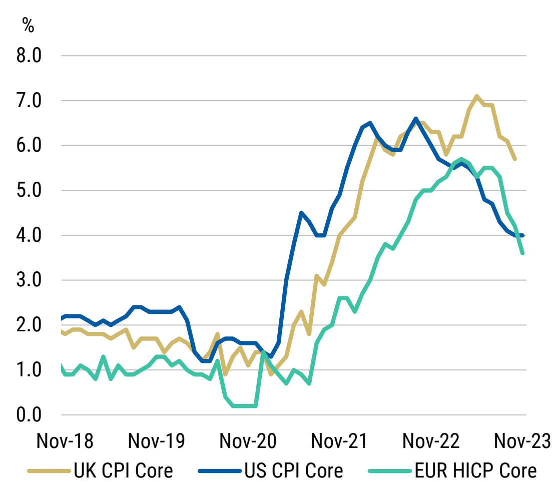
Core inflation and high wage growth data. As headline inflation decreased, the recent focus has shifted to core inflation and the high level of wage growth, which remains well above the level consistent with the inflation target (estimated at ~4%) which ultimately might support core inflation remaining sticky. The decrease in UK core inflation is notable from Exhibit 41 , but equally so is the lag when compared to the US and the euro area (see Exhibit 41).

Exhibit 40: UK headline inflation, while more elevated, is catching up other G3 economies



Source: Bloomberg, Morgan Stanley Research

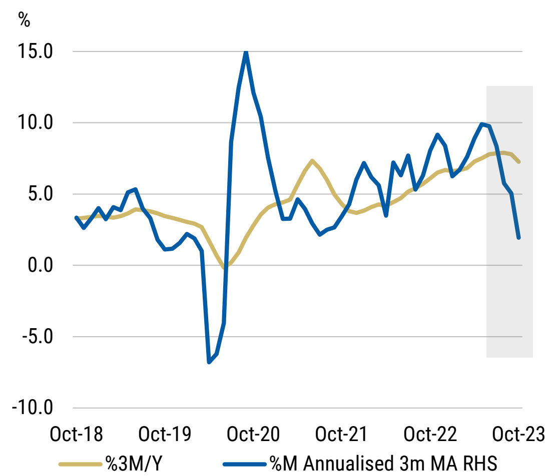
Exhibit 41: Core inflation remains a concern for the BoE while explaining the consensus view on a later BoE easing cycle



Source: Bloomberg, Morgan Stanley Research

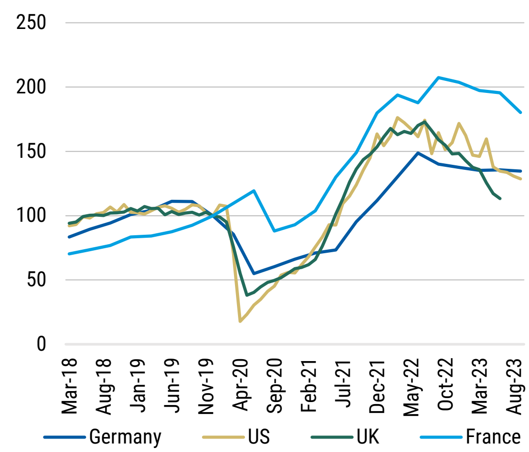
Much blame has been placed on the UK labour market, which remains tight by historical standards, fuelling strong wage growth. Latest data show Total Regular Pay Growth at 7.3% %3M/Y in October (see Exhibit 42). However, the headline figures can underestimate the recent momentum in wage growth dynamics, with the M% readings pointing to a significant slowdown, with both total pay and private sector pay turning negative on %M basis in October 2023. The slowdown in momentum is notable when looking at the recent %M prints reported in Exhibit 42 , where we plot the three-month annualised moving average. In addition, the UK labour market has been slacking significantly in recent months, and likely more than the US and the euro area countries on a vacancies-to-unemployment basis, according to our economists' estimates (see Exhibit 43).

Exhibit 42: A clear slowdown in momentum is notable from the Total Pay Growth %M readings



Source: Haver, Morgan Stanley Research

Exhibit 43: While on a V/U ratio basis, the UK labour market seems having slackened more than other DMs

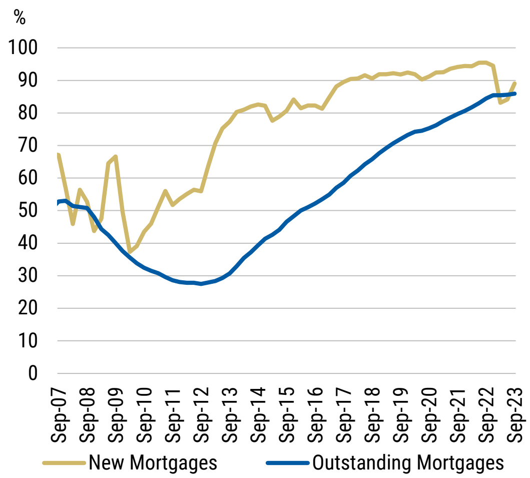


Source: Haver, Morgan Stanley Research

The UK economy and the impact of monetary policy. The UK economy has performed somewhat better than expected over the past year as a recession has been avoided so far, while real wage growth turned positive; this has further fuelled expectations that monetary policy might stay restrictive for longer as the market has indeed speculated that the monetary policy pass-through rate to households has been less effective than expected.

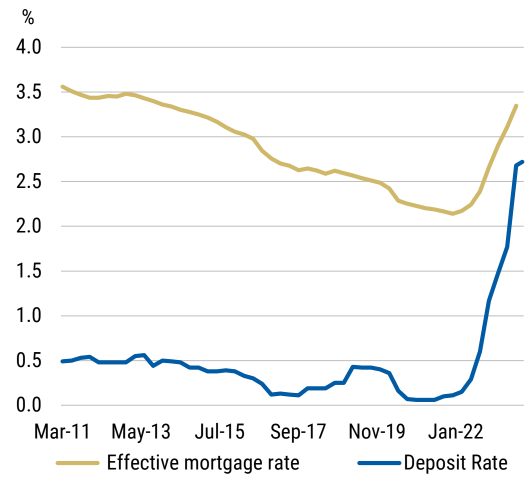
While the monetary policy pass-through rate to households has likely been more lagged than history, given the higher-than-history outstanding fixed-rate mortgages (~85% at September 2023 as shown in Exhibit 44), which implies a slow pace in the effective mortgage rate increase, which just recently reached ~3.35% in September 2023 (see Exhibit 45), the impact of monetary policy on the UK economy and consumption could have been underestimated given its lagged impact with re-mortgaging to continue to weigh on households' cash flows, while the positive effect of the rise in deposit rates should decrease as they plateau (see Exhibit 45).

Exhibit 44: Fixed-rate mortgages account for ~85% of the total stock outstanding, which delays the monetary policy pass-through rate



Source: BoE, Morgan Stanley Research

Exhibit 45: However the effective mortgage rate has recently picked up and should weigh on households' cash-flows



Source: BoE, Morgan Stanley Research

Overall, the market expects the BoE to maintain a higher-for-longer stance in the following months, while starting the easing cycle later than Fed and the ECB. Different factors have supported this consensus view, with the elevated level of core inflation and the tight labour market among the most important ones.

Having said that, recent dynamics seem to be challenging this view, and the slowing momentum in pay rises could open the door for a earlier-than-expected BoE pivot - which could surprise the market. In this scenario we could expect front-end duration to perform strongly: while the amount of cuts looks elevated, a dovish tilt from the BoE could increase the probability of 50bp cuts, which would be supportive for front-end rates and steeper curves.

Surprise #7: The JGB curve steepens instead of flattens

MORGAN STANLEY MUFG SECURITIES CO., LTD.
Koichi Sugisaki
koichi.sugisaki@morganstanleymufg.com
+81 3 6836-8428

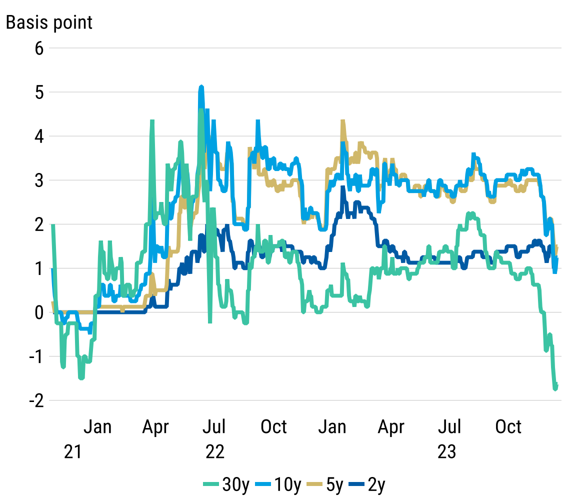
Fewer BoJ hikes than investors want, but they wait for more

With many overseas investors envisaging a terminal rate in the 0.5%–1.0% range for the BoJ's presumably imminent hiking cycle, the general consensus appears to be that the curve will end up flattening through the super-long sector owing to underperformance of the belly zone. It would thus come as at least somewhat of a surprise if the curve were instead to keep steepening even after Japan's central bank finally kicks off its "normalization" process.

We see the risk for the curve to either bear-steepen or twist-steepen if the BoJ signals its intention to proceed only gradually but life insurers and other domestic investors remain unexpectedly reluctant to "buy the dip" in the long-end. Moreover, flattener positions could prove painfully costly to maintain (due to negative carry) in the event of short- to medium-term yields failing to rise by as much as currently envisaged.

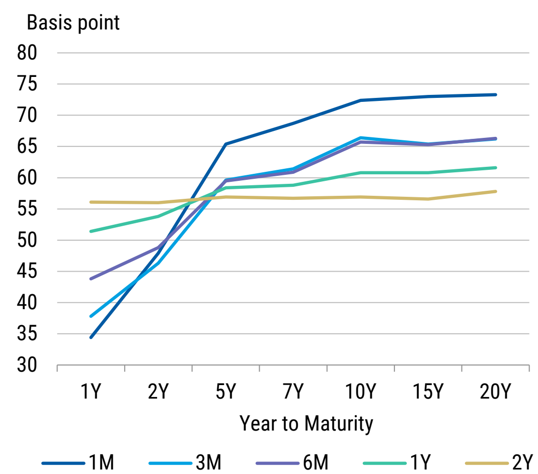
Our discussions with overseas investors indicate that many expect the BoJ to proceed with some number of additional rate hikes, after first raising its short-term policy rate from –0.1% to zero. The spread of forecasts is as yet quite wide, with the general expectation seemingly pointing to a terminal rate in the 0.5%–1.0% range, but with the most hawkish investors envisaging something closer to 2%.

Exhibit 46: JSCC-LCH basis movement



Source: Morgan Stanley Research, Bloomberg

Exhibit 47: JPY swaption normal vol curve



Source: Morgan Stanley Research, Bloomberg

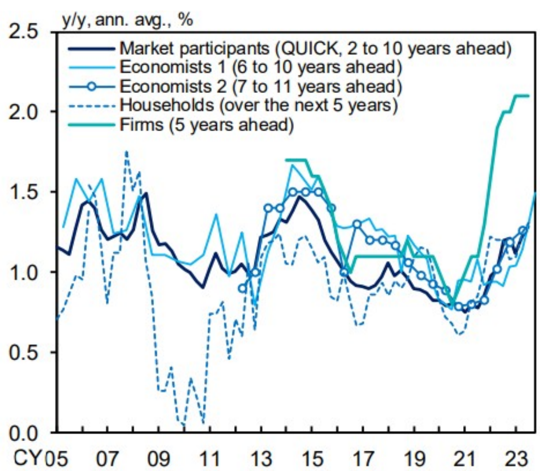
Many also appear to be positioning for a flattening of the curve through the super-long sector driven predominantly by underperformance of the belly zone, with the JSCC-LCH basis currently at its widest for the medium-term sector (see Exhibit 46) and the implied volatility curve priced as though it will virtually flatten out after one to two years (see Exhibit 47).

As discussed in "Japan | Fading The Excessive Speculation", the BoJ is currently deciding on the best timing to launch its monetary policy “normalization” initiative and has yet to offer any guidance as to possible further tightening.

Market participants thus remain free to make their own assumptions about the central bank’s intentions, which may be influenced by exogenous conditions as well as domestic data on wages and other key economic variables.

For example, from around August through October of this year there appeared to be scope for markets to price in a more hawkish BoJ rate hike trajectory, as medium- to long-term inflation expectations were seemingly boosted by an uptrend in US interest rates, continuing JPY weakness against the greenback, and associated upward pressure on import costs (see Exhibit 48 , Exhibit 49).

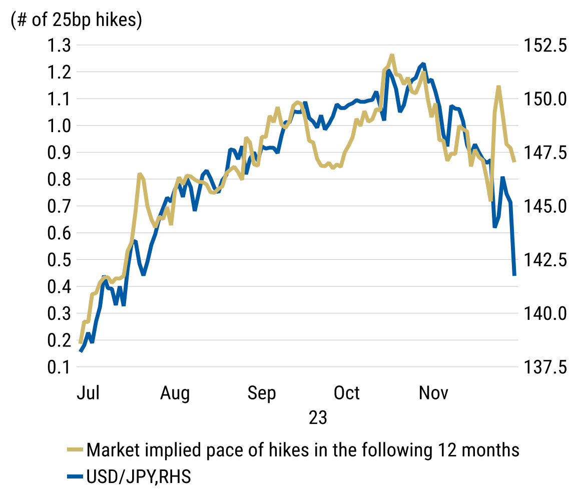
Exhibit 48: Survey based inflation expectation via various measures



Source: Bank of Japan; QUICK, "QUICK Monthly Market Survey <Bonds>"; JCER, "ESP Forecast"; Consensus Economics Inc., "Consensus Forecasts."

Notes: 1. "Economists 1" shows the forecasts of economists in the Consensus Forecasts. "Economists 2" shows the forecasts of forecasters surveyed for the ESP Forecast. 2. Figures for households are from the Opinion Survey on the General Public's Views and Behavior, estimated using the modified Carlson-Parkin method for a 5-choice question. 3. Figures for firms show the inflation outlook of enterprises for general prices (all industries and enterprises, average) in the Tankan.

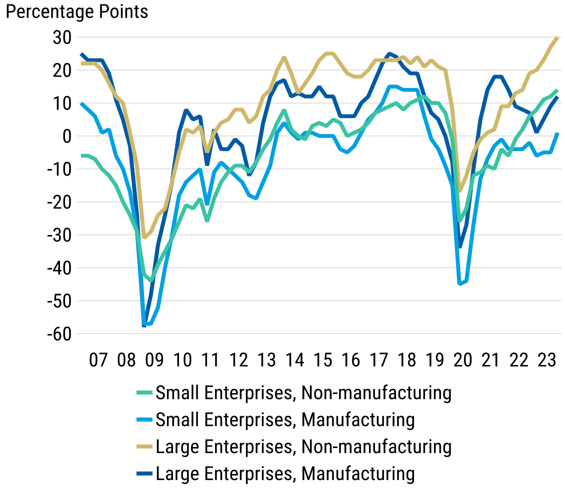
Exhibit 49: USD/JPY and market implied pace of BoJ's 25bp hikes in the following 12 months



Source: Morgan Stanley Research, Bloomberg

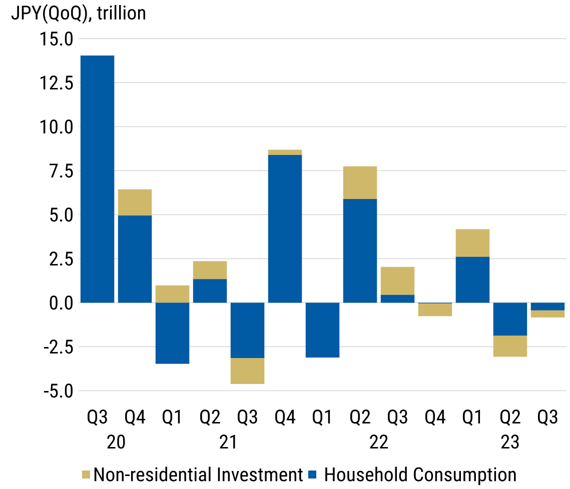
US interest rates and USD/JPY have however fallen sharply of late now that the Fed has effectively signaled that it is done hiking its policy rate and has started to consider when to start cutting. Domestic economic data have meanwhile been painting a mixed picture, with the December BoJ Tankan survey pointing to improvements in business conditions even for small and midsize firms (not only their larger counterparts) (see Exhibit 50), but the 3Q GDP estimates showing both consumer spending and corporate capex contracting for a second straight quarter (see Exhibit 51).

Exhibit 50: BoJ Tankan business condition DI (current status)



Source: Morgan Stanley Research, BoJ

Exhibit 51: Household consumption and non-residential investment



Source: Morgan Stanley Research, Bloomberg

It might thus be difficult for markets to price in a hawkish rate hike trajectory under current conditions absent some sort of clearer signal from the BoJ itself.

But, our economists actually see little prospect of the BoJ offering guidance about possible further rate hikes even after the negative interest rate policy (NIRP) has finally been terminated. Many survey-based measures of inflation expectations are still closer to +1.5% than to the desired +2% "anchor" level, which might suggest to the central bank that it does not as yet need to be overly worried about the risk of a sustained overshoot (see Exhibit 48).

Moreover, the BoJ may start to demonstrate greater concern about its own financial risk. The December 4 "broad-perspective review" workshop saw Monetary Affairs Department staffers outline how they expect the central bank's balance sheet and finances to be impacted once rate hikes commence, with the basic message being that improved yields on the BoJ's JGB holdings (presuming that reinvestment continues) are liable to be partially offset by an increase in the cost of remunerating excess reserves (which are set to shrink only gradually if reinvestment does indeed continue).

The paper being presented did however also stress that **the BoJ's bottom line might end up looking somewhat worse in the event of short-end rates rising faster than long-term rates (i.e. under a bear-flattening scenario).**

The overall conclusion was that while a central bank's ability to provide its own means of payment and settlement should ultimately prevent any deficits or even temporary insolvency from posing problems for implementation of policy, there is nevertheless a risk of credibility being called into question—with potential adverse ramifications for market stability—if undue attention ends up being focused on central bank finances.

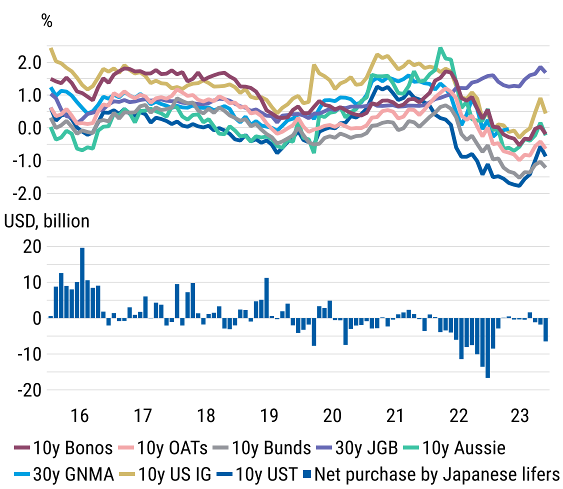
The BoJ might therefore be mindful of what could happen if the cost of remunerating such massive excess reserves (currently north of JPY500 trillion) does surge sharply higher as a consequence of rapid rate hikes.

Taking all of the above into consideration, we see scope for short- to medium-term JPY rates to remain unexpectedly low—in defiance of the current consensus—both prior to and after any eventual exit from NIRP.

What about the super-long sector? Many investors appear to be expecting life insurers to start "buying the dip" as yields move higher, with their exposure to foreign bonds having been cut back quite steadily over the past year and a half or so as persistently high FX hedging costs have served to increase the relative appeal of super-long JGBs (see Exhibit 52).

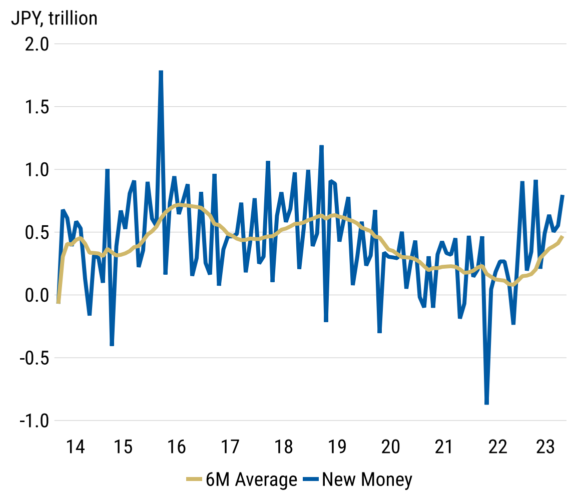
2H FY2023 investment plans are indeed already suggestive of a widespread intention to channel the proceeds of recent foreign bond sales into super-long JGBs, and insurers will also presumably have more new money to invest as assumed rates of return continue to be hiked for single-premium products (thereby making them more popular) (see Exhibit 53).

Exhibit 52: 30y JGB yield vs 1y FX hedged foreign bonds yield, and net purchase of foreign bonds by lifers



Source: Japan MoF, Bloomberg, Morgan Stanley Research

Exhibit 53: Japanese lifers' new money



Source: The Life Insurance Association of Japan, Morgan Stanley Research

But as we discussed in "2023 Plan of Investors in Japan", it is by no means guaranteed that the proceeds of foreign bond sales will be "repatriated" back into the JGB market. FX hedging costs have now started to decline as a consequence of the Fed's recent dovish surprise, and we consider it quite conceivable that sales proceeds might simply end up being reinvested in foreign bonds (such as US IGs and Mortgages) once the Fed enters into a rate cutting cycle and yield curves steepen.

Moreover, many lifers appear to be hoping that JGB yields will improve further as the BoJ sets about its "normalization", and might thus look to keep limiting their investment for at least the time being.

On top of that, as we discussed in "Japan | Fading Any Flattening Move Ahead Of BoJ MPM", it would seem that lifers have already gone a long way towards meeting their ALM-related hedging needs in preparation for Japan's 2025 adoption of an economic-value-based solvency regime. **All in all, the demand for lifers in the long-end JGBs may be not so huge compared to the past couple of years.**

Meanwhile, the BoJ could be particularly quick to cut back its super-long JGB purchases as part of the "normalization" process (which should be comparatively easy to do without causing monetary conditions to tighten unduly), while we believe that the MoF is likely to retain the status quo for 30+ issuance in upcoming FY2024 JGB issuance.

To summarize, we see a non-negligible risk of short- to medium-term JPY rates remaining anchored, with the super-long sector meanwhile underperforming given the relatively weak demand from lifers. Moreover, negative carry could make flattener positions increasingly painful to hold with the passage of time. We are also wary of the potential for quite sudden steepening if currently popular flattener trades should end up being exited in a rush.

Surprise #8: Window for GBP gains

MORGAN STANLEY & CO. INTERNATIONAL PLC

David S. Adams, CFA
David.S.Adams@morganstanley.com +44 20 7425-3518

Dominic Krummenacher
Dominic.Krummenacher@morganstanley.com +44 20 7425-9781

GBP: Is the window for gains emerging?

While our, and indeed the market's, base case for 2024 is that the carry-induced GBP gains of 2023 will reverse as growth takes a hit and yields come down, there is room for a surprise. An exceedingly low bar for economic data, in addition to cheap asset valuations, and the possibility for increased UK-EU economic cooperation provide the basis for a potentially bullish GBP surprise in 2024.

GBP was the second-best-performing G10 currency this year, only edged out by the CHF.

We think the GBP's gains can be chiefly explained by the unexpected resilience of core inflation in the UK, which led to a far-higher-than-expected Bank rate and, in a market deeply focused on carry, this proved appealing.

Our base case is that lower-than-expected economic data and bond yields will erode this key advantage and leave GBP a laggard. But there is scope for GBP to continue surprising a generally-bearish investor community. We see a potential constellation from the following:

1. Economic data exceeding a low bar;
2. Cheap asset valuations generating capital inflows; and
3. Increased investor optimism about UK-EU economic cooperation.

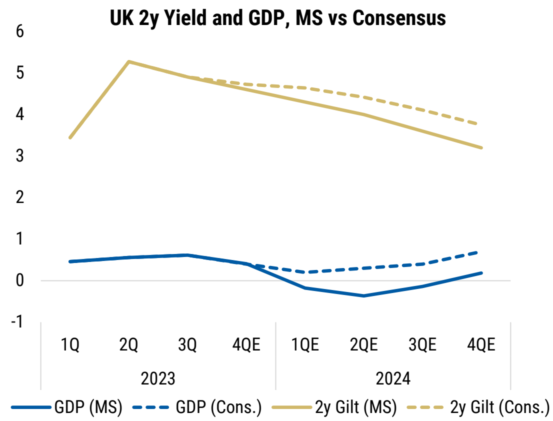
Low bars are easy to step over: While we're more bearish than consensus on both UK data and UK bond yields (Exhibit 54), we're far from alone: UK growth in 2024 is expected to be the second lowest in the G10, edged out only by Sweden (Exhibit 55).

The combination of low (and declining) expectations for potential growth and continued passthrough of the BoE's aggressive rate hikes has left investors wary of bullish growth expectations.

The lower the bar, the easier it is to exceed. The clearest GBP-positive combination would be from positive growth surprises but also negative inflation surprises.

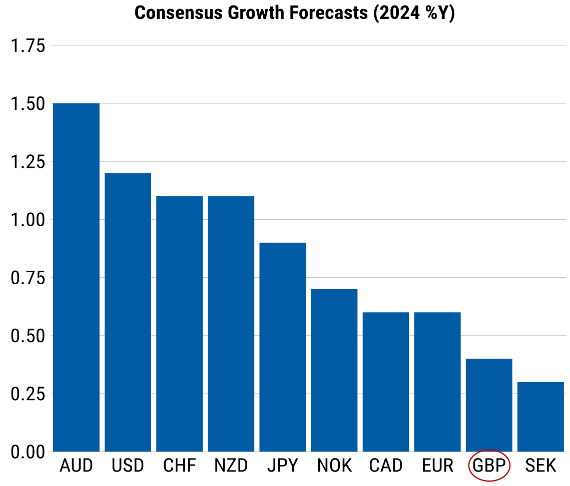
This is because disinflationary pressures would enable the BoE to cut rates more aggressively, which would bolster growth expectations on the back of already-positive growth surprises. A twist steepening in the UK yield curve from this combination would likely prove GBP-positive.

Exhibit 54: Morgan Stanley forecasts for 2024 in the UK are more bearish than consensus in growth and 2y yields



Source: Morgan Stanley forecasts, Bloomberg, Morgan Stanley Research

Exhibit 55: Consensus expectations for UK 2024 growth are second lowest in G10



Source: Bloomberg, Macrobond, Morgan Stanley Research

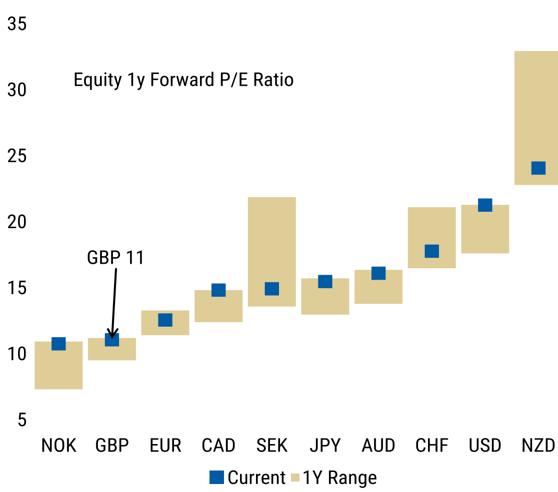
Buy low, sell high: As noted here, UK assets are arguably among the cheapest in the world. The FTSE 100 trades at a P/E of 11x based on 1y forward earnings, the second lowest in the G10 (Exhibit 56).

Meanwhile, UK government bonds continue to trade at the cheapest levels in the G10 relative to neutral rate estimates (Exhibit 57).

As we discuss here, liquid capital imports are an important source of financing for the UK's current account deficit. If foreign investors view UK assets as inexpensive enough to offer value, they could deploy more capital in the UK, putting upward pressure on sterling.

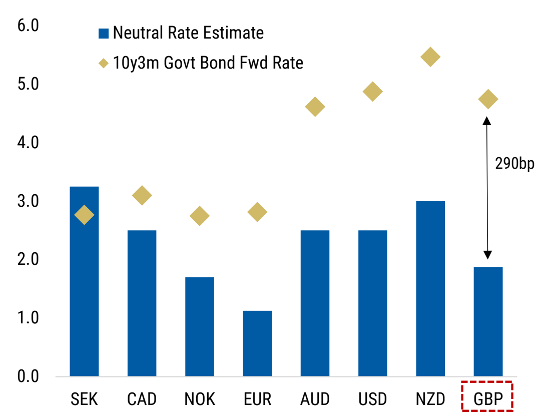
A stabilization in inflation, growth, and political volatility offers potential avenues to allure capital into the UK.

Exhibit 56: UK assets are among the cheapest in the G10 with FTSE 1Y forward P/E at 11x...



Source: Bloomberg, Macrobond, Morgan Stanley Research

Exhibit 57: ... and UK government bonds trading at a significant discount to neutral rate estimates



Source: Bloomberg, Macrobond, Morgan Stanley Research

Play nice, you two: A common refrain we hear from investors is that volatility in the UK's relationship with the EU raises uncertainty and reduces the attractiveness of investments, all else equal.

A key potential source of GBP upside relates to the UK's relationship with its largest trading partner, the EU.

If investors come to believe that the UK and EU will seek closer trading arrangements, perhaps even opening up a path toward re-entry into some of the economic unions such as the European Free Trade Area or the customs union and/or Schengen Area, they may get more optimistic about investing in UK assets.

The upcoming UK election later next year (most likely) could be an important catalyst for investors to re-think their base cases for the UK-EU trading relationship.

Surprise #9: Drop in Australia and Canada r* pricing

MORGAN STANLEY & CO. LLC

Andrew Watrous
Andrew.Watrous@morganstanley.com
+1 212 761-5287

Zoe Strauss
Zoe.Strauss@morganstanley.com
+1 212 761-0407

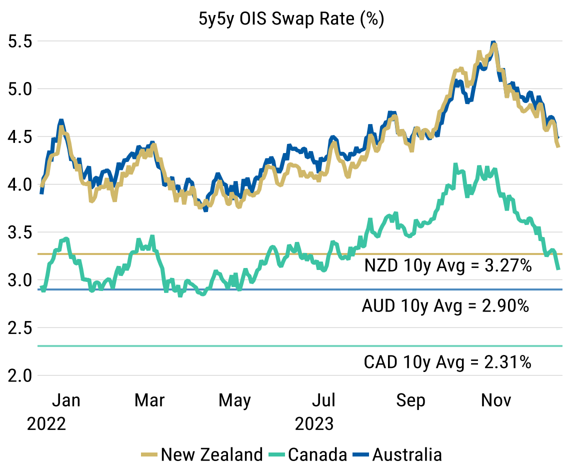
Lower, not higher, medium-term rate expectations

Market-pricing is consistent with a high likelihood that the RBA and BoC will lower their short-term interest rate in 2024 as inflationary pressures recede. However, medium-term rate expectations – a proxy for the neutral rate of interest (or r*) – remain elevated from a historical perspective. Low productivity and the possibility of slower trend growth in China (and associated risks to commodity prices) raise the potential that investors are surprised by falling r* pricing in both Australia and Canada.

Market pricing currently implies an expectation that medium-term rates will be significantly above recent averages (Exhibit 58).

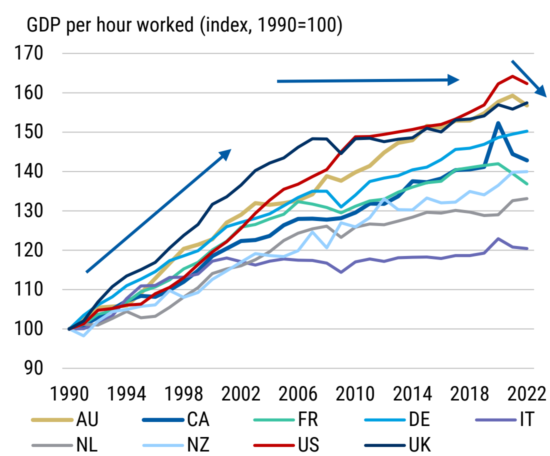
We see potential for a surprise. Medium-term rates expectations may decline to near or below recent averages, particularly in Australia and Canada.

Exhibit 58: Markets are currently pricing relatively medium-term rates in the dollar bloc



Source: Bloomberg, Morgan Stanley Research

Exhibit 59: Productivity growth was strong in the 1990s, but has recently inflected lower in Canada and Australia



Source: OECD, Macrobond, Morgan Stanley Research

We see two main reasons to think markets are underpricing the likelihood of lower longer-term rates in Australia and Canada. Productivity growth has been sluggish in both economies. And our economists have flagged the potential that Chinese trend growth declines significantly, with implications for both economies' terms of trade.

1. Sluggish productivity

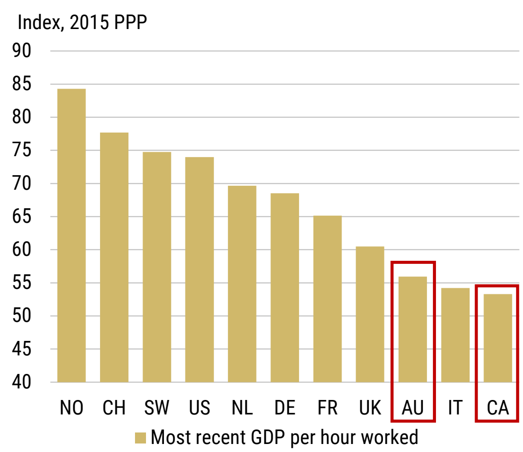
5y5y forward rates are often used as a market-implied proxy for the expectation of the neutral rate of interest (or r*).

Both policy makers and investors have debated whether neutral rates may have shifted higher post-pandemic after trending downwards since the early 2000s in most developed economies. The discussion around upside risks to current neutral rate estimates was a key debate during a sharp rise in long-end yields across G10 over the summer.

Academic research has put forward a variety of theories on drivers of neutral rates, including both local and global factors. These theories include the secular stagnation thesis associated with former Treasury Secretary, Larry Summers and the global savings glut thesis proposed by former Fed Chair Ben Bernanke.

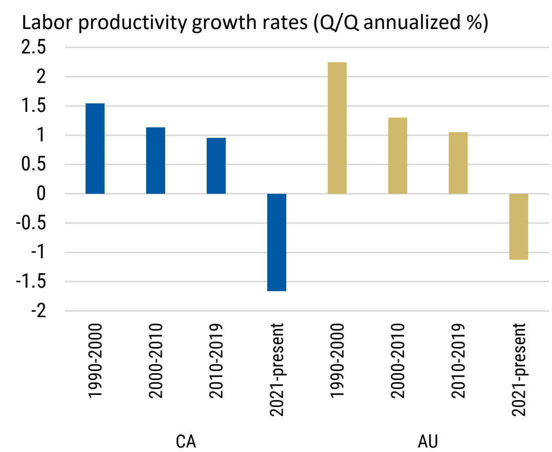
Our economics research team has published on the close link between productivity growth and long-run r*. Based on recent data, there are reasons to believe that relatively low productivity in Canada and Australia may put downward pressure on long-term interest rates.

Exhibit 60: Compared to other DM economies, Australia's and Canada's GDP per hour worked is low



Source: OECD, Macrobond, Morgan Stanley Research

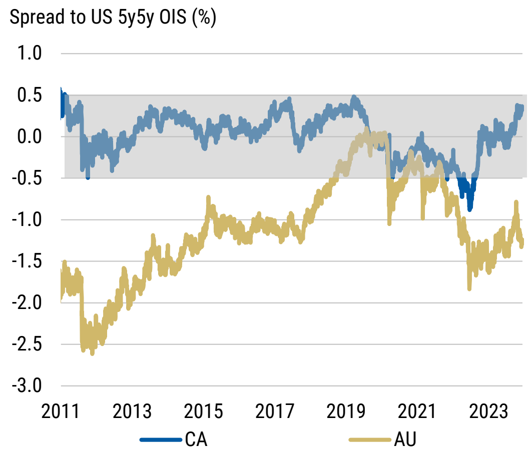
Exhibit 61: Labour productivity growth rates have continued their downward trajectory, also in the years since the pandemic



Source: Macrobond, Morgan Stanley Research

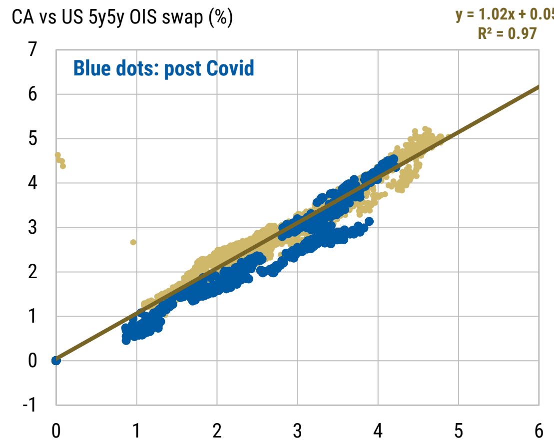
Compared to other developed markets, Canadian and Australian GDP per hour worked remains low and has declined in recent quarters. Labor productivity in Canada and Australia point on average to negative quarterly growth rates since 2021. Even if some of more recent data might be influenced by idiosyncratic post-pandemic developments, the latest growth data do not support the view that productivity is increasing.

Exhibit 62: Canadian 5y5y OIS swap rate has almost never traded above or below 50bp the US rate



Source: Bloomberg, Morgan Stanley Research

Exhibit 63: The close relationship between US and Canadian medium-term rates has remained intact post-Covid



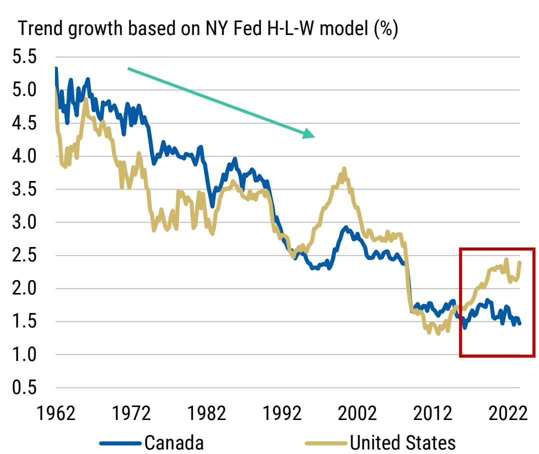
Source: Bloomberg, Morgan Stanley Research

For Canada, we believe that the rise in medium-term policy rate expectations is largely due to the fact that the 5y5y OIS swap rate closely follows the US rate. The spread between the two rates has consistently been less than 50bp over the past decade, even though trend growth has diverged between the US and Canada.

2. Chinese growth risks to commodity prices

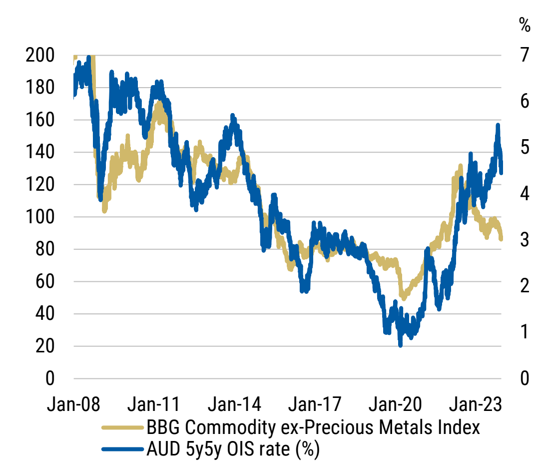
For Australia, the outlook for Chinese growth may be a determinative factor for medium-term rates. Our China economists recently lowered their longer-term growth forecasts for the Chinese economy, due to increased secular headwinds and risks of a debt-deflation loop.

Exhibit 64: Trend growth in Canada has continued



Source: NY Federal Reserve, Morgan Stanley Research

Exhibit 65: The last time investors saw Australian medium-term rates this high, commodity prices were significantly higher



Source: Bloomberg, Morgan Stanley Research

The last time investors saw Australian medium-term rates this high, commodity prices were significantly higher, with commodity demand from China playing an important role. A longer-term shift in China in which growth is increasingly driven by consumption as opposed to the property sector may be another factor why Australian long-term rates should be lower, given Australia's economic reliance on industrial metals exports to China.

To conclude: There remain plausible arguments that we have entered an era of structurally higher rates, not least because of a shift towards a more fragmented and multipolar world.

However, in 2024 medium-term rates expectations may decline in Australia and Canada based on domestic factors. Downside risks to medium-term policy rate expectations have barely been discussed and central bankers have focused on the upside risks to long-term interest rates. Dollar bloc rates declining in 2024 below their 10y average would therefore likely be a surprise.

Surprise #10: Breakevens revert to 2019 levels

MORGAN STANLEY & CO. LLC

Guneet Dhingra
Guneet.Dhingra@morganstanley.com
+1 212 761-1445

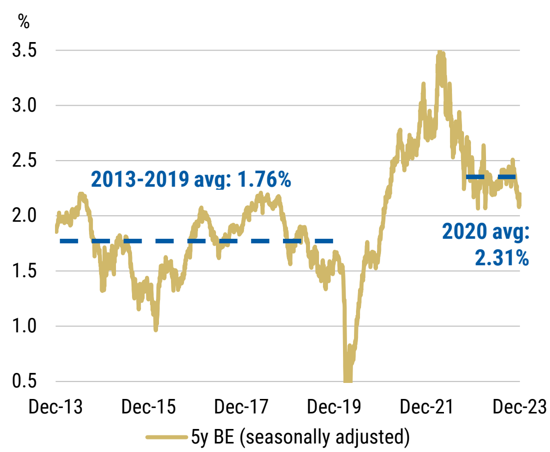
Francesco Grechi
Francesco.Grechi@morganstanley.com
+1 212 761-1009

Sub-2% breakeven inflation becomes the norm (again)

The surprise? US inflation markets return to pricing breakevens at pre-pandemic levels by YE 2024. This comes as investors attribute the recent inflationary experience to supply-chain and fiscal shocks, and Fed tightening currently in the pipeline causes downward surprises to CPI over 2024. Inflation risk premiums become amply negative, and breakevens tighten accordingly.

The implications? Breakevens drop ~30-50bp from current levels by YE24. The move is most pronounced for front-end points, as downside core inflation surprises over 2024 cause the market to reduce near-term inflation risk premiums. Quantitatively, 5y BEs and the 5s30s BE curve normalize to their 2013-2019 averages of 1.75% and 20bp respectively (see Exhibit 66 and Exhibit 67), leaving the 30y BE at 1.95%.

Exhibit 66: TIPS breakevens levels...



Source: Bloomberg, Morgan Stanley Research
Note: Breakevens are seasonally adjusted (bbg: MSSABE05, MSSABE30)

Exhibit 67: ...and curve over the past 10 years

Source: Bloomberg, Morgan Stanley Research
Note: Breakevens are seasonally adjusted (bbg: MSSABE05, MSSABE30)

Why is this scenario unlikely/not in our base case? A return to the pre-pandemic inflation market paradigm is unlikely for three reasons:

1. **Downside services inflation surprises require a deep recession:** We think 2024 CPI will be driven by the behavior of the core services basket. Core services are unlikely to surprise materially to the downside without a pronounced slowdown in the labor market. Our economists do not see such a slowdown in their base case for the US economy, as outlined in their 2024 Year-Ahead Outlook.
2. **Core goods deflation is already pronounced:** Core goods inflation has largely normalized to its pre-pandemic run rate (see Exhibit 68), and further weakening

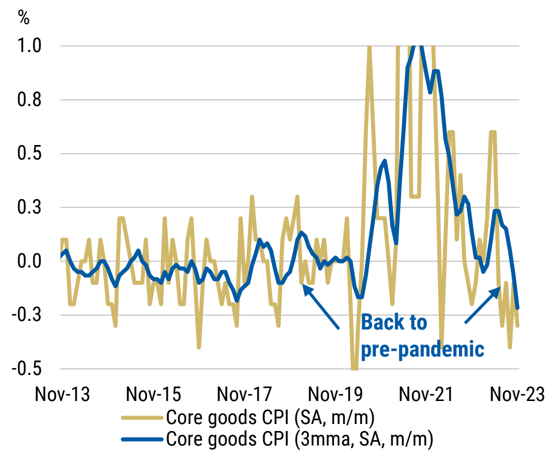
seems unlikely.

3. **Investor psychology has changed:** Recent history has reminded investors that inflation does, in fact, exist (after a decade of anemic CPI prints pointing to the contrary). Investor psychology, therefore, could keep inflation risk premiums positive going forward

Why *could* it happen? Well, the narrative moves...

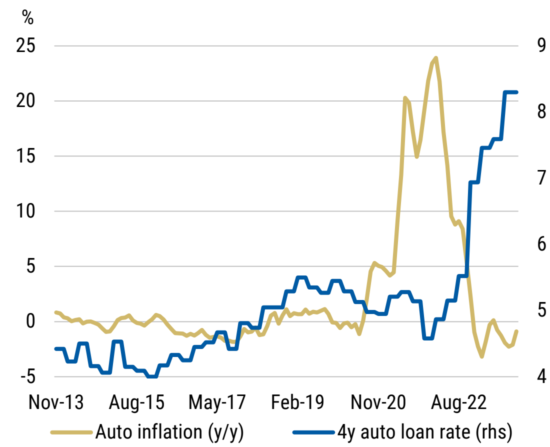
The Federal Reserve has (thus far) reduced inflation while avoiding major damage to the real economy. Should such a "soft-landing" scenario persists (our economists' base case), investors could largely attribute the recent inflationary experience to supply-chain and fiscal shocks. Markets will thus reduce inflation risk premiums, as they decrease the likelihood of the US economy accommodating CPI materially above 2%.

Exhibit 68: Core goods CPI in line with pre-pandemic trends...



Source: Bloomberg, Morgan Stanley research

Exhibit 69: ...but auto loans could signal downside risks to auto inflation



Source: Bloomberg, Morgan Stanley Research

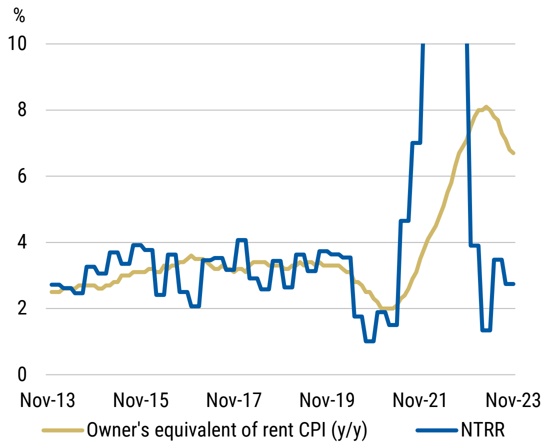
...and the data catalyzes

Fed tightening currently in the pipeline could lead to a surprise slowdown in economic activity, and thus disinflation beyond what is currently anticipated. This slowing in data could catalyze a move lower in inflation pricing, especially when combined with the previously outlined narrative change.

Where in the basket could the tightening be felt? We think there are two potential areas:

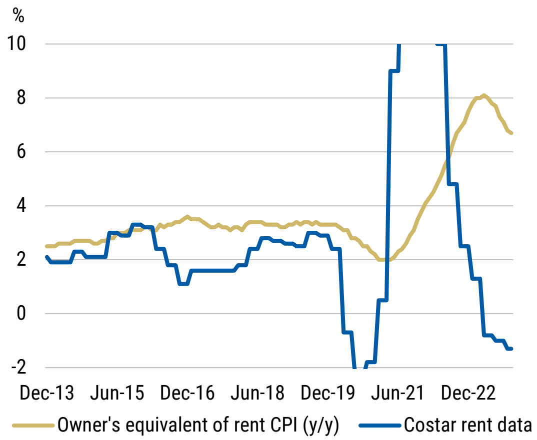
1. **Elevated borrowing causes durable goods prices to drop faster than expected:** Auto loan rates are at decade highs, and could continue to slow demand even as Fed policy loosens, leading to core goods disinflation beyond what is currently forecasted.
2. **Shelter inflation puts downwards pressure on core services:** The New Tenant Repeat Rent (NTRR) shows new tenant rents back at pre-pandemic levels, still a negative sign for shelter inflation over coming months (see Exhibit 70). High frequency rent data also points to further weakness in the index (see Exhibit 71).

Exhibit 70: The NTRR points to downside shelter CPI risks...



Source: Bloomberg, Morgan Stanley Research

Exhibit 71: ...as do other high frequency rent measures



Source: Bloomberg, Morgan Stanley Research

Technical Analysis

MORGAN STANLEY & CO. LLC

Matthew Hornbach, CMT
Matthew.Hornbach@morganstanley.com
+1 212 761-1837

Pivot Points

Pivot points are charting levels used by day traders to determine market direction, support, and resistance levels. We calculate weekly pivot points using the previous week's open, high, low, and closing levels.

Exhibit 72: Government bond yield weekly pivots, support and resistance levels

	UST 10y	CAN 10y	DBR 10y	UKT 10y	JGB 20y	ACGB 10y
Weekly resistance 3	4.431	3.576	2.370	4.233	1.690	4.479
Weekly resistance 2	4.277	3.442	2.267	4.072	1.601	4.369
Weekly resistance 1	4.181	3.359	2.203	3.973	1.546	4.302
Weekly pivot high	4.027	3.225	2.100	3.812	1.456	4.192
Weekly pivot low	3.991	3.194	2.077	3.775	1.431	4.163
Weekly Support 1	3.873	3.091	1.997	3.651	1.367	4.082
Weekly Support 2	3.778	3.008	1.933	3.552	1.312	4.015
Weekly Support 3	3.695	2.936	1.877	3.465	1.274	3.964

Source: Morgan Stanley Research

Exhibit 73: Foreign exchange rates weekly pivots, support, and resistance levels

	DXY	EURUSD	USDJPY	GBPUSD	AUDUSD	USDCAD
Weekly resistance 3	105.37	1.1149	148.86	1.2952	0.6845	1.3719
Weekly resistance 2	104.42	1.1086	146.71	1.2885	0.6809	1.3616
Weekly resistance 1	103.83	1.1047	145.38	1.2840	0.6773	1.3552
Weekly pivot high	102.88	1.0914	143.24	1.2692	0.6674	1.3450
Weekly pivot low	102.60	1.0882	142.67	1.2658	0.6656	1.3425
Weekly Support 1	101.93	1.0819	141.09	1.2591	0.6620	1.3347
Weekly Support 2	101.34	1.0780	139.76	1.2546	0.6584	1.3283
Weekly Support 3	100.94	1.0717	138.75	1.2477	0.6539	1.3231

Source: Morgan Stanley Research

Exhibit 74: Foreign exchange rates weekly pivots, support, and resistance levels

	EURJPY	EURCHF	EURNOK	EURSEK	NOKSEK	AUDNZD
Weekly resistance 3	159.28	0.9598	12.0408	11.3818	1.0112	1.0898
Weekly resistance 2	157.82	0.9569	11.8526	11.3241	1.0038	1.0872
Weekly resistance 1	156.92	0.9556	11.7363	11.2884	0.9966	1.0848
Weekly pivot high	155.47	0.9502	11.5481	11.2306	0.9768	1.0779
Weekly pivot low	155.07	0.9487	11.5053	11.2158	0.9731	1.0766
Weekly Support 1	154.01	0.9459	11.3599	11.1729	0.9657	1.0740
Weekly Support 2	153.11	0.9445	11.2436	11.1372	0.9585	1.0716
Weekly Support 3	152.46	0.9419	11.1411	11.1092	0.9495	1.0684

Source: Morgan Stanley Research

Cyclical and Secular Trends

Government Bonds

In The Tactical Bull Market Is Back, we discussed a simple methodology based on the Ichimoku Kinko charting technique for classifying market movements as bullish, bearish, or range bound. Then, we define whether the market movement is cyclical or secular in nature. A cyclical move is shorter term in nature, and a secular move is longer term in nature. For cyclical moves, we further divide them into tactical and strategic. We use daily data to inform tactical moves, and weekly data to inform strategic moves. We use monthly data to inform secular movements.

Exhibit 75: Summary of cyclical (tactical and strategic) and secular bull, bear, and range bound rates markets

					Cyclical	Cyclical	Secular
	Daily	Daily	Daily		Tactical	Strategic	
	Last	Cloud Lower	Cloud Upper	200d MA	Daily	Weekly	Monthly
UST 2y	4.443	4.988	5.005	4.645	Bull Market	Bear Market	Bear Market
UST 5y	3.909	4.578	4.677	4.119	Bull Market	Bear Market	Bear Market
UST 10y	3.911	4.536	4.723	4.026	Bull Market	Bear Market	Bear Market
UST 30y	4.008	4.677	4.871	4.175	Bull Market	Bear Market	Bear Market
DBR 2y	2.504	3.044	3.146	2.947	Bull Market	Range bound	Bear Market
DBR 5y	1.999	2.655	2.686	2.506	Bull Market	Range bound	Bear Market
DBR 10y	2.016	2.737	2.760	2.505	Bull Market	Range bound	Bear Market
DBR 30y	2.215	2.925	2.992	2.635	Bull Market	Range bound	Bear Market
UKT 2y	4.290	4.764	4.951	4.538	Bull Market	Bear Market	Bear Market
UKT 5y	3.736	4.426	4.515	4.183	Bull Market	Range bound	Bear Market
UKT 10y	3.687	4.444	4.475	4.163	Bull Market	Range bound	Bear Market
UKT 30y	4.160	4.889	4.907	4.490	Bull Market	Range bound	Bear Market
JGB 10y	0.696	0.798	0.883	0.576	Bull Market	Bear Market	Bear Market
JGB 20y	1.427	1.547	1.638	1.259	Bull Market	Bear Market	Bear Market
JGB 30y	1.625	1.774	1.800	1.494	Bull Market	Bear Market	Bear Market
JGB 40y	1.854	1.984	2.050	1.691	Bull Market	Bear Market	Bear Market
ACGB 2y	3.881	4.138	4.279	3.781	Bull Market	Bear Market	Bear Market
ACGB 5y	3.821	4.173	4.343	3.754	Bull Market	Bear Market	Bear Market
ACGB 10y	4.139	4.486	4.711	4.010	Bull Market	Bear Market	Bear Market
ACGB 20y	4.429	4.816	5.033	4.349	Bull Market	Bear Market	Bear Market
NZGB 2y	5.005	4.894	4.954	5.170	Bear Market	Bear Market	Range bound
NZGB 5y	4.428	4.604	4.621	4.669	Bull Market	Bear Market	Range bound
NZGB 10y	4.567	4.750	4.756	4.707	Bull Market	Bear Market	Bear Market
CAN 2y	3.950	4.578	4.678	4.367	Bull Market	Range bound	Bear Market
CAN 5y	3.246	4.014	4.103	3.668	Bull Market	Range bound	Bear Market
CAN 10y	3.120	3.891	3.929	3.444	Bull Market	Bear Market	Bear Market
CAN 30y	2.921	3.697	3.714	3.340	Bull Market	Bull Market	Bear Market

Source: Morgan Stanley Research

Foreign Exchange

Exhibit 76: Summary of cyclical (tactical and strategic) and secular bull, bear, and range bound FX markets

					Cyclical	Cyclical	Secular
	Daily	Daily	Daily		Tactical	Strategic	
	Last	Cloud Lower	Cloud Upper	200d MA	Daily	Weekly	Monthly
DXY	102.59	105.14	105.98	103.51	Bear Market	Bear Market	Bull Market
USDJPY	142.15	148.09	150.11	142.53	Bear Market	Bull Market	Bull Market
USDCAD	1.3380	1.3640	1.3749	1.3510	Bear Market	Range bound	Bull Market
USDCHF	0.8705	0.8995	0.9034	0.8937	Bear Market	Bear Market	Bear Market
USDNOK	10.4597	10.8989	11.0711	10.6848	Bear Market	Range bound	Bull Market
USDSEK	10.2708	11.0243	11.0365	10.6787	Bear Market	Bear Market	Bull Market
EURUSD	1.0895	1.0628	1.0697	1.0830	Bull Market	Bull Market	Bear Market
GBPUSD	1.2681	1.2254	1.2392	1.2504	Bull Market	Bull Market	Bear Market
AUDUSD	0.6699	0.6397	0.6408	0.6577	Bull Market	Range bound	Bear Market
NZDUSD	0.6209	0.5905	0.5915	0.6090	Bull Market	Range bound	Bear Market
EURJPY	154.85	158.13	159.35	154.31	Bear Market	Bull Market	Bull Market
NOKSEK	0.9817	0.9911	1.0082	0.9998	Bear Market	Bear Market	Bear Market
AUDNZD	1.0794	1.0785	1.0825	1.0800	Range bound	Bear Market	Bull Market
USDBRL	4.9438	5.0020	5.0305	4.9619	Bear Market	Bear Market	Range bound
USDMXN	17.21	17.60	17.80	17.54	Bear Market	Bear Market	Bear Market
USDARS	801.07	349.96	349.98	290.97	Bull Market	Bull Market	Bull Market
USDCLP	875.30	899.04	904.43	844.43	Bear Market	Range bound	Bull Market
USDCOP	3,938.00	4,134.06	4,141.26	4,274.31	Bear Market	Bear Market	Bull Market
USDPEN	3.7590	3.7833	3.8007	3.7267	Bear Market	Range bound	Range bound
USDZAR	18.31	18.73	18.90	18.67	Bear Market	Range bound	Bull Market
USDTRY	28.9962	27.5683	28.2484	24.7784	Bull Market	Bull Market	Bull Market
USDILS	3.6717	3.9309	3.9566	3.7333	Bear Market	Bull Market	Bull Market
USDRUB	118.69	76.75	77.44	80.24	Bull Market	Bull Market	Bull Market
USDPLN	3.9764	4.2250	4.2633	4.1636	Bear Market	Bear Market	Bull Market
USDCZK	22.4706	22.7803	23.0866	22.1927	Bear Market	Range bound	Bear Market
USDHUF	351.15	359.66	360.72	350.94	Bear Market	Bear Market	Bull Market
USDCNY	7.1215	7.2899	7.2951	7.1294	Bear Market	Bull Market	Bull Market
USDIDR	15,493.00	15,589.50	15,733.25	15,247.17	Bear Market	Bull Market	Bull Market
USDINR	83.00	82.82	83.19	82.66	Range bound	Bull Market	Bull Market
USDKRW	1,296.35	1,329.29	1,330.50	1,315.39	Bear Market	Range bound	Bull Market
USDMYR	4.6693	4.7095	4.7119	4.6008	Bear Market	Bull Market	Bull Market
USDPHP	55.67	56.38	56.39	55.77	Bear Market	Range bound	Bull Market
USDSGD	1.3327	1.3611	1.3618	1.3466	Bear Market	Bear Market	Bear Market
USDTWD	31.2500	32.1580	32.2973	31.3333	Bear Market	Bull Market	Bull Market
USDTHB	34.8420	36.0360	36.0940	35.0593	Bear Market	Range bound	Bull Market
GOLD	2,020	1,910	1,943	1,955	Bull Market	Bull Market	Bull Market

SILVER	23.86	22.58	22.85	23.59	Bull Market	Bull Market	Bull Market
CRUDE OIL	71.43	80.80	82.60	76.06	Bear Market	Bear Market	Bull Market

Source: Morgan Stanley Research, Bloomberg

G4 Smarter (beta) Trading Strategy

MORGAN STANLEY & CO. LLC

Matthew Hornbach, CMT
Matthew.Hornbach@morganstanley.com
+1 212 761-1837

Enhancements to a G4 10y government bond futures momentum strategy have produced higher Sharpe ratios and stronger returns, relative to total return government bond indices for the G4, US, Germany, Japan, and the UK since 2000. See A "Smarter" (Beta) Way to Trade G4 10y Futures Duration? for more information on these strategies.

Trading Strategy 1 – "Trade Longs/Fade Shorts"

When the 5-day moving average crosses above the 20-day moving average, buy the futures contract (long duration) and hold for a 25 business day period. When the 5-day moving average crosses below the 20-day moving average, buy the futures contract and hold for a 25 business day period. In short, this strategy buys futures when the Simple Moving Average Crossover (SMAX) generates both a long and a short signal, given the historical outperformance of long signals traded long and underperformance of short signals traded short. Given that the SMAX could generate both a long and a short signal within the predefined holding period, an investor may have a 200% long position since each of the two signals would be traded in separate portfolio sleeves.

Trading Strategy 2 – Trade "Longs Only"

When the 5-day moving average crosses above the 20-day moving average, buy the futures contract (long duration) and hold for a 25 business day period. When the 5-day moving average crosses below the 20-day moving average, do nothing. In short, an investor ONLY trades long signals initiated by the SMAX given their historical precedent to outperform

Exhibit 77: Trading signals for G4 smarter (beta) trading strategy

Current Risk, G4 10y Futures	G4 Strategy Weight	Trade Longs Portfolio	Fade Shorts Portfolio	Total Risk Trade Longs Only	Total Risk Trade Longs/Fade Shorts (max 200%)	Trade Longs Portfolio Entry Date	Trade Longs Portfolio Exit Date	Fade Shorts Portfolio Entry Date	Fade Shorts Portfolio Exit Date
JB 10y Future	32.50%	100%	100%	100%	200%	12/14/2023	1/24/2024	12/14/2023	1/24/2024
GE 10y Future	29.25%	0%	0%	0%	0%	-	-	-	-
US 10y Future	30.50%	0%	0%	0%	0%	-	-	-	-
UK 10y Future	7.75%	0%	0%	0%	0%	-	-	-	-

Source: Morgan Stanley Research

Bond Market Indicators

Our BMI(10) models are neutral to bearish for all markets. Vol-adjusted carry is bearish for all regions, while momentum is generally bullish, with the exception of Japan. Equity market signals are bullish for the U.K. and Japan only, while business cycle indicators are bearish for the U.S., the U.K., and Japan. FX signals are bullish for Japan and Australia.

Our BMI(2) models are bullish for Japan and neutral to bearish for all other markets. Vol-adjusted carry is bullish for Japan only, while momentum is bearish for Australia only. Equity market signals are bullish for the U.K. and Japan only. Business cycle indicators are the same as for our BMI(10) models. FX signals are bullish for Japan and Australia only.

Our iBMI models are bearish for UKTi & JGBi, and neutral for all other regions. Oil signal grew less bearish across all regions. Momentum signal grew more bearish for TIPS, UKTi & HICPxT. Equities signal turned bullish for UKTI, grew less bullish for TIPS & HICPxT, and turned bearish for JGBi.

Latest readings

Exhibit78: Morgan Stanley Bond Market Indicators - BMI(10)

Country	Vol-Adjusted Carry	Momentum	Equity Markets	Business Cycle	FX	Average	Overall
US	-9.5 (-9.4)	8.0 (3.0)	-4.3 (-4.3)	-1.6 (-0.1)	-0.5 (4.6)	-1.6 (-1.2)	**-1.6 (0.0)**
DE	-9.9 (-9.9)	7.3 (5.0)	-3.1 (-3.0)	2.6 (2.6)	-8.6 (-9.2)	-2.3 (-2.9)	**-2.3 (-2.9)**
UK	-8.0 (-8.0)	8.1 (9.3)	0.8 (2.6)	-7.4 (-7.4)	-6.6 (-4.4)	-2.6 (-1.6)	**-2.6 (-1.6)**
JP	-7.0 (-6.5)	-0.6 (2.5)	3.3 (-0.1)	-2.7 (-2.3)	8.5 (6.1)	0.3 (-0.1)	**0.0 (0.0)**
AU	-4.9 (-4.5)	0.4 (0.1)	-3.4 (-0.5)	2.9 (1.4)	9.9 (9.9)	1.0 (1.3)	**0.0 (0.0)**
NZ	-7.2 (-7.9)	4.2 (4.1)	-1.2 (-1.3)	3.9 (0.8)	-7.9 (-4.1)	-1.6 (-1.7)	**-1.6 (-1.7)**
CA	-9.8 (-9.9)	8.0 (4.7)	-1.6 (-1.7)	4.0 (4.0)	-9.7 (-9.8)	-1.8 (-2.5)	**-1.8 (-2.5)**

Source: Morgan Stanley Research

Note: Positive # = long duration; Negative # = short duration, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10, Overall signal set to zero if abs(Signal)<=1.5

Exhibit 79: Morgan Stanley Bond Market Indicators - BMI(2)

Country	Vol-Adjusted Carry	Momentum	Equity Markets	Business Cycle	FX	Average	Overall
US	-9.9 (-9.8)	9.6 (6.8)	-4.3 (-4.3)	-1.6 (-0.1)	-5.4 (-1.0)	-2.3 (-1.7)	**-2.3 (-1.7)**
DE	-9.9 (-10.0)	8.6 (3.8)	-3.1 (-3.0)	2.6 (2.6)	-2.6 (-6.8)	-0.9 (-2.7)	**0.0 (-2.7)**
UK	-5.0 (-3.8)	7.7 (8.3)	0.8 (2.6)	-7.4 (-7.4)	-7.5 (-6.4)	-2.3 (-1.3)	**-2.3 (0.0)**
JP	8.5 (9.8)	4.1 (7.2)	3.3 (-0.1)	-2.7 (-2.3)	10.0 (9.7)	4.6 (4.9)	**4.6 (4.9)**
AU	-6.2 (-4.7)	-1.2 (-2.3)	-3.4 (-0.5)	2.9 (1.4)	9.9 (9.9)	0.4 (0.8)	**0.0 (0.0)**
NZ	-9.5 (-8.6)	5.7 (5.1)	-1.2 (-1.3)	3.9 (0.8)	-8.5 (-5.7)	-1.9 (-1.9)	**-1.9 (-1.9)**
CA	-9.7 (-9.5)	9.0 (7.6)	-1.6 (-1.7)	4.0 (4.0)	-9.1 (-9.4)	-1.5 (-1.8)	**0.0 (-1.8)**

Source: Morgan Stanley Research
Note: Positive # = long duration; Negative # = short duration, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10, Overall signal set to zero if abs(Signal)<=1.5

Exhibit 80: Morgan Stanley Bond Market Indicators - xBMIs

Country	Long US	Long DE	Long UK	Long JP	Long AU	Long NZ	Long CA
vs. US	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
vs. DE	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	1.7 (2.1)	0.0 (0.0)	0.0 (0.0)
vs. UK	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	1.8 (0.0)	0.0 (0.0)	0.0 (0.0)
vs. JP	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
vs. AU	0.0 (0.0)	-1.7 (-2.1)	-1.8 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (-1.9)
vs. NZ	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
vs. CA	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (1.6)	0.0 (1.9)	0.0 (0.0)	0.0 (0.0)

Source: Morgan Stanley Research
Note: Positive # = long cross market spreads; Negative # = short cross market spread, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -15 and +15, Signal is set to zero if abs(Signal)<=2

Exhibit81: Morgan Stanley Euro Sovereign Bond Market Indicators - eBMI

	Business Cycle Surprises	Momentum	Vol. Adj. Carry	Supply	Risky Assets	Overall
Periphery vs. Core	-2.5 (-2.4)	0.7 (0.8)	2.4 (3.0)	4.8 (4.8)	9.9 (9.9)	**3.1 (3.2)**
Semi-Core vs. Core	-1.9 (-3.3)	0.8 (-3.7)	8.7 (9.0)	-1.5 (-1.5)	-4.7 (-6.6)	**0.3 (-1.2)**
Periphery vs. Semi-Core	-0.3 (0.4)	-0.1 (2.2)	-3.1 (-3.0)	3.2 (3.2)	7.3 (8.2)	**2.8 (4.4)**

Source: Morgan Stanley Research
Note: Positive # = long spreads; Negative # = short spreads, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10.

Exhibit82: Morgan Stanley Inflation Bond Market Indicators - iBMI

	Oil	Momentum	Equities	Value	Average	Overall
TIPS	-4.9 (-6.0)	-6.6 (-2.6)	2.0 (1.8)	6.2 (6.6)	-0.8 (0.0)	**0.0 (0.0)**
UKTi	-6.0 (-6.7)	-7.0 (-6.8)	0.4 (-0.7)	6.9 (6.9)	-1.4 (-1.8)	**-1.4 (-1.8)**
HICPxT	-5.7 (-6.4)	-6.8 (-6.3)	2.1 (1.8)	7.5 (7.5)	-0.7 (-0.8)	**0.0 (0.0)**
JGBi	-6.2 (-6.8)	6.3 (6.3)	-1.5 (0.9)	-4.2 (-4.2)	-1.4 (-0.9)	**-1.4 (0.0)**

Source: Morgan Stanley Research
Note: Positive # = long inflation breakeven; Negative # = short inflation breakeven, (#) = previous week Thursday close which may differ from the post-nonfarm payroll update, Indicators bounded between -10 and +10, Overall signal set to zero if abs(Signal)<=1.0

How to read the xBMIs

The "FX/Rates" row displays the FX/rates relationship signal. The "Combined BMI differential" row displays the difference between the relevant BMI(10) signals after having applied the signal strength check, i.e., abs(signal) >= 1.5. The "Average xBMI" row displays the average of the "FX/Rates" and "Combined BMI differential" rows. And the "Overall" score requires that the sign of the "Average xBMI" signal match the sign of the "Combined BMI differential" signal and be ≥ the absolute value of 2.

Government Bond Supply

In the US, 20y UST will be re-opened for $13bn and 5y TIPS, for $20bn, against no cash flow coming to the market. **In the euro area,** we estimate no issuance, but €0.3bn coupons and €3.1bn redemptions will be paid in the coming week. **In the UK,** UKT 0.625% Gilt 2034 will be issued for £3bn. This is against no coupons and no redemptions coming into the market. **In Japan,** there will be two auctions for enhanced liquidity for ¥500bn each, against ¥1.7tn coupons ¥18.7tn redemptions coming to the market. **In Canada,** 5y CAN 4% Mar 2029 and 10y CAN 3.25% Jun 2034 will be issued for $4bn each. There will be no cash flow coming into the market. **In Australia,** there will be no issuance against $1bn coupons and no redemptions. **In New Zealand,** there will be no issuance against $0.1bn coupons and no redemptions. **In China,** 1y, 7y and 10y CGB will be issued for CNY115bn, respectively, against CNY2.7bn coupons and no redemptions. Total issuance settling of LGB will be CNY28.7bn, against CNY6.7bn redemptions. Total net issuance (including both CGB and LGB) will be CNY364.3bn.

Exhibit 83: Sovereign supply calendar

Monday	Tuesday	Wednesday	Thursday	Friday
18-DEC	**19-DEC**	**20-DEC**	**21-DEC**	**22-DEC**
CAN: 5y CAN 4% Mar 2029, $4bn	UK: UKT 0.625% Gilt 2034, £3bn	US: 20y UST Re-opening, $13bn JPN: Auction for Enhanced Liquidity, ¥500bn CHN: 1y CGB, CNY115bn CHN: 10y CGB, CNY115bn	US: 5y TIPS Re-opening, $20bn CAN: 10y CAN 3.25% Jun 2034, $4bn	JPN: Auction for Enhanced Liquidity, ¥500bn CHN: 7y CGB, CNY115bn
25-DEC	**26-DEC**	**27-DEC**	**28-DEC**	**29-DEC**
	US: New 2y UST, $57bn* JPN: 2y JGB, ¥2900bn*	ITA: BTPst Auction Cancelled US: New 5y UST, $58bn*	US: New 7y UST, $40bn* ITA: BTP Auction Cancelled	
1-JAN	**2-JAN**	**3-JAN**	**4-JAN**	**5-JAN**
***AUT: Possible New 10y RAGB, €5bn* ***IRE: Possible New 10y IRISH, €3.5bn* ***POR: Possible New 10y PGB, €3bn*	**GER: Possible BKO, €6bn*		FRA: OAT Auction, €10-11bn* SPA: SPGB Auction, €6-7bn* UK: UKT 3.75% Gilt 2038, £3.7bn*	JPN: Auction for Enhanced Liquidity, ¥500bn*

Source: Morgan Stanley Research, Treasuries
* Morgan Stanley estimate. ** Possible Auction *** Issuance likely to happen in the beginning of respective week.

Forecasts

Government bonds

Exhibit 84: Morgan Stanley sovereign 2y, 5y, 10y, and 30y yield base case forecasts

	2Y				5Y				10Y				30Y			
	1Q24	2Q24	3Q24	4Q24	1Q24	2Q24	3Q24	4Q24	1Q24	2Q24	3Q24	4Q24	1Q24	2Q24	3Q24	4Q24
US	4.65	4.40	4.05	3.70	4.33	4.15	4.00	3.85	4.35	4.20	4.08	3.95	4.58	4.50	4.45	4.40
Germany	2.60	2.10	1.75	1.60	2.30	1.90	1.70	1.70	2.50	2.10	1.80	1.80	2.75	2.45	2.25	2.30
Japan	0.10	0.15	0.25	0.20	0.35	0.45	0.60	0.55	0.80	0.85	1.00	0.90	1.70	1.70	1.80	1.75
UK	4.40	4.00	3.60	3.20	4.10	3.80	3.50	3.30	3.90	3.70	3.60	3.50	4.60	4.40	4.10	4.00
Canada	4.30	4.20	3.90	3.60	3.75	3.70	3.50	3.30	3.65	3.60	3.45	3.30	3.45	3.40	3.35	3.30
Australia	4.30	4.25	4.10	3.95	4.40	4.35	4.30	4.20	4.65	4.55	4.50	4.40	5.00	4.90	4.80	4.70
New Zealand	5.15	5.00	4.75	4.50	4.80	4.70	4.55	4.40	5.00	4.95	4.90	4.85	5.10	5.05	5.05	5.00
Austria*	15	15	10	10	40	40	35	35	60	55	50	45	65	60	55	50
Netherlands*	15	15	10	10	30	30	25	25	40	35	35	30	30	30	30	30
France*	10	10	10	10	45	45	40	40	65	60	60	55	100	100	95	95
Belgium*	15	15	15	15	50	50	45	45	75	70	70	65	110	110	105	105
Ireland*	5	5	5	5	45	45	40	40	55	55	55	50	75	75	70	70
Spain*	55	50	45	40	85	75	70	65	110	110	105	100	185	180	175	170
Italy*	115	100	90	85	175	160	150	145	220	210	200	190	240	230	225	220
Portugal*	20	20	15	10	85	90	85	80	90	85	80	75	160	145	145	145

Source: Morgan Stanley Research, *Spread to German Bunds

Exhibit 85: Morgan Stanley sovereign 10-year yield bull, base, and bear case forecasts

	Bull				Base				Bear			
	1Q24	2Q24	3Q24	4Q24	1Q24	2Q24	3Q24	4Q24	1Q24	2Q24	3Q24	4Q24
US	3.90	3.30	2.90	2.50	4.35	4.20	4.08	3.95	4.63	4.75	4.90	5.05
Germany	2.40	1.90	1.60	1.50	2.50	2.10	1.80	1.80	2.90	2.80	2.70	2.70
Japan	0.65	0.50	0.45	0.35	0.80	0.85	1.00	0.90	1.05	1.20	1.40	1.80
UK	4.10	3.60	3.20	3.00	3.90	3.70	3.60	3.50	4.70	4.80	4.70	4.60
Canada	3.05	2.75	2.60	2.45	3.65	3.60	3.45	3.30	3.85	3.95	3.95	3.95
Australia	4.00	3.70	3.60	3.50	4.65	4.55	4.50	4.40	4.80	4.90	4.90	4.90
New Zealand	4.50	4.10	4.05	4.00	5.00	4.95	4.90	4.85	5.30	5.40	5.40	5.40
Austria*	60	55	45	45	60	55	50	45	65	60	55	55
Netherlands*	35	35	30	30	40	35	35	30	40	35	35	35
France*	60	60	55	55	65	60	60	55	75	70	65	65
Belgium*	70	70	65	60	75	70	70	65	85	80	75	70

Ireland*	50	55	50	50	55	55	55	50	65	65	60	60
Spain*	100	100	100	95	110	110	105	100	120	115	110	110
Italy*	195	185	180	170	220	210	200	190	250	235	225	220
Portugal*	70	65	65	60	90	85	80	75	115	105	100	100

Source: Morgan Stanley Research, *Spread to German Bunds

Foreign exchange

Exhibit 86: Morgan Stanley foreign exchange base case forecasts

	4Q23	1Q24	2Q24	3Q24	4Q24	1Q25	2Q25	3Q25	4Q25
EUR/USD	1.04	1.00	1.01	1.02	1.04	1.05	1.07	1.08	1.10
USD/JPY	147	145	142	140	140	140	139	139	138
GBP/USD	1.19	1.14	1.14	1.14	1.15	1.18	1.20	1.23	1.25
USD/CHF	0.89	0.94	0.93	0.93	0.91	0.91	0.91	0.91	0.91
USD/SEK	11.06	11.80	11.58	11.37	11.06	10.85	10.65	10.46	10.27
USD/NOK	11.54	11.90	11.49	11.08	10.58	10.39	10.22	10.04	9.88
USD/CAD	1.38	1.41	1.40	1.37	1.36	1.34	1.33	1.31	1.30
AUD/USD	0.63	0.61	0.62	0.62	0.63	0.65	0.68	0.70	0.72
NZD/USD	0.58	0.57	0.58	0.58	0.59	0.60	0.62	0.63	0.64
EUR/JPY	153	145	143	143	146	147	149	150	152
EUR/GBP	0.87	0.88	0.89	0.89	0.90	0.90	0.89	0.88	0.88
EUR/CHF	0.93	0.94	0.94	0.95	0.95	0.96	0.98	0.99	1.00
EUR/SEK	11.50	11.80	11.70	11.60	11.50	11.45	11.39	11.34	11.28
EUR/NOK	12.00	11.90	11.60	11.30	11.00	10.96	10.93	10.89	10.85
USD/CNY	7.30	7.45	7.50	7.48	7.45	7.42	7.38	7.34	7.28
USD/HKD	7.82	7.84	7.83	7.81	7.79	7.79	7.78	7.77	7.76
USD/IDR	15700	15900	15700	15600	15500	15356	15213	15069	14926
USD/INR	83.4	83.7	83.6	83.0	82.5	81.5	80.4	79.4	78.4
USD/KRW	1320	1350	1340	1320	1290	1281	1271	1262	1253
USD/MYR	4.70	4.80	4.77	4.73	4.67	4.60	4.54	4.47	4.40
USD/PHP	56.5	57.5	57.0	56.5	56.0	56.0	56.0	56.0	56.0
USD/SGD	1.36	1.380	1.377	1.370	1.355	1.356	1.357	1.359	1.360
USD/TWD	32.4	32.8	32.6	32.4	31.8	31.6	31.4	31.2	30.9
USD/THB	35.8	36.5	36.3	36.0	35.2	35.2	35.1	35.1	35.1
USD/BRL	5.00	5.10	5.20	5.25	5.30	5.25	5.20	5.15	5.10
USD/MXN	17.75	19.00	20.00	19.50	19.25	19.25	19.25	19.25	19.25
USD/ARS	672.0	858.0	1022.0	1172.0	1318.0	1461.0	1612.0	1762.0	1898.0
USD/CLP	920	930	950	930	925	900	875	850	825
USD/COP	4150	4300	4400	4450	4500	4350	4200	4050	3900
USD/ZAR	19.0	19.5	19.0	18.5	18.0	17.9	17.8	17.7	17.6
USD/TRY	30.00	31.50	35.00	36.50	38.00	39.00	41.00	43.00	45.00
USD/ILS	4.00	4.10	4.00	3.90	3.90	3.85	3.81	3.76	3.71
EUR/PLN	4.45	4.50	4.40	4.30	4.20	4.15	4.10	4.05	4.01

EUR/CZK	24.8	25.0	24.5	24.0	23.5	24.2	24.9	25.6	26.3
EUR/HUF	385	390	395	400	400	395	384	376	367
DXY	107	111	110	109	107	106	104	103	102
Broad USD (Fed)	124	128	128	127	126	125	124	123	121

Source: Morgan Stanley Research. Click here for custom cross forecasts

Exhibit 87: Morgan Stanley foreign exchange Base, Bear, Bull scenarios

4Q24	Bear	Base	Bull
EURUSD	1.00	1.04	1.10
GBPUSD	1.10	1.15	1.22
USDJPY	132	140	146
AUDUSD	0.60	0.63	0.67
USDCNY	7.20	7.45	7.70
USDINR	79.2	82.5	85.8
USDZAR	17.3	18.0	18.4
USDBRL	4.80	5.30	5.80
USDMXN	18.50	19.25	20.50

Source: Morgan Stanley Research

Trade Ideas

Below you will find a list of our current trade ideas, entry levels, entry dates, rationales, and risks.

Interest Rate Strategy				
TRADE	**ENTRY LEVEL**	**ENTRY DATE**	**RATIONALE**	**RISKS**
Long 10s on 5s10s30s butterfly	-46bp	8-Dec-23	10s have sold off relative to the fly over the past month, and we enter this relative value trade due to the cheapness in the 10s.	10s continue to sell off relative to the fly.
Sell 15 ASW	-49.2bp	8-Dec-23	As supply will likely remain high for longer while the BoE is carrying out active QT sales, we see more scope for ASW to cheapen further. In addition, the next FY supply is expected to increase with short and medium issuance likely to be higher.	A pick-up in gilt demand, which could support richer ASW valuations particularly over the short term.
Receive EUR 2y1y vs. 1y1y	-18bp	8-Dec-23	We think the amount of easing priced is not in line with the narrative of "higher for longer" and with the recent outperformance of European leading indicators.	Risks to the trade include a faster near-term deceleration of headline inflation below 2% by 1Q24, or a big exogenous event prompting a change in the ECB's reaction function.
Buy EUR 2m10y 3.00/3.30 payer swaption spread	340k for 100mn notional	6-Dec-23	Supply will increase significantly in January and 10y Bund yields are 20bp rich versus our model. After the recent repricing, President Lagarde could be more vocal and highlight the ECB does not consider any monetary policy easing for the time being.	A continuation of the rally supported by expectations of ECB rates falling below the neutral level in 2025.
Receive June 2025 BoC	3.57%	1-Dec-23	We continue to see more evidence that the Canadian economy is slowing, which eventually should translate into lower price pressures. Our economist expects that the BoC will be able to cut its policy rate to 3% by mid 2025, which is above market expectations.	Persistent core inflation and a rebound in economic activity could keep the BoC more restrictive for longer.
February 130.5/129 Bund put spread	30cts	1-Dec-23	We believe the risk-reward on long EUR duration is much less attractive than it was before December 2023 due to factors such as supply, seasonality, positioning, short-end valuation, and the Bund valuation versus macro.	The market prices further ECB easing in 1H24.
Pay EUR 5y5y swap	2.97%	1-Dec-23	We believe the risk-reward on long EUR duration is much less attractive than it was before December 2023 due to factors such as supply, seasonality, positioning, short-end valuation, and the Bund valuation versus macro.	The market prices further ECB easing in 1H24.
Short EU 3.25% 2034 on ASW	23bp	29-Nov-23	Issuance could weigh on 10y EU ASW. The seasonal tightening of OAT ASW late December/ early January should lead to a cheapening of 10y EU ASW as well.	Low EU target issuance for 1H24 and reduced expected issuance for Germany in 2024, which would support German ASW and possibly indirectly EU ASW.
Buy EU 0.7% 2051 versus EU 2.5% 2052	7bp	29-Nov-23	EU 2.5% 2052 is rich, with a z-score of -1.4 on the EU 51s52s53s fly. 51s52s price action diverged from GER 10s30s, following the flattening of 30s50s in OATs. We think this could correct.	A flattening of OAT 30s50s

10y Belgium/Austria widener	4.3bp	17-Nov-23	Supply outlook for 2024 supports Austria vs Belgium.	Strong retail issuance demand for Belgium in 2024, which could stabilize the spread.
Short 30y JGB ASW	14.8bp	17-Nov-23	We think 30y TONA OIS trade cheap vs the fair value implied by 10y UST yield and BoJ's rate hike pricing, while 30y JGBs remain rich. In the event of a global duration rally, we see the cheapness of 30y OIS fading led by short-covering by the fast money community.	Higher UST yields can drive higher term premium in OIS.
New Zealand OIS 2s10s steepener	34bp	12-Nov-23	We expect the NZGB curve to bull steepen in 2024 as CPI inflation decelerates below the pace in Australia and growth continues to decelerate from the 2022 highs. Real retail sales may fall below their pre-Covid pace as high rates weigh on the economy, leading the RBNZ to signal removal of policy restrictions in 2024.	Substantial near-term fiscal stimulus from New Zealand's new governing coalition would likely warrant higher near-term yields, flattening the 2s10s curve.
Australia OIS 2s10s flattener	24bp	12-Nov-23	We expect front-end Australia yields to drift sideways through 1H24 as resilient inflation pressures lead the RBA to raise rates to 4.60%, and then keep rates on hold longer (i.e., cut later) than peer central banks. On a cross-market basis this resilience in the front end of the Australian yield curve is likely to keep the 2s10s spread from widening significantly.	A pronounced decline in Australian inflation during early 2024.
ECB Jan 24/Apr 24 calendar spread steepeners	-21bp	3-Nov-23	We think that the bar for the ECB to cut as early as 1Q24 seems high, considering that the ECB may be willing to accept a period of stagnant (or even negative) growth in order to bring inflation closer to target.	A severe economic shock, leading the ECB to cut early into 1Q24.
Short BTP 4.40% May 33 versus Bund 1.7% Aug 32	180bp	3-Nov-23	After the recent repricing of the 10y spread, we think that the risk reward for the structural short 10y BTP versus Bund is attractive again.	A continuation of the rally on credit indices, which would support BTPs in the near term.
Pay GBP swap 2s5s10s	-32bp	27-Oct-23	The fly has recently richened, with the 5y sector outperforming across tenors, and our factor model suggests the fly being ~12b too rich (~-1.6 z-score). In addition, a hawkish BoE could drive the fly cheaper in the short term.	More dovish BoE rhetoric, alongside more short-term rates curve inversion and a decrease in implied rates volatility.
Rec 10y TONA OIS vs short 30y JGB (DV01 1.5 vs 1)	25.5bp	6-Oct-23	The attractive positive carry + rolldown to position for lower BoJ rate-hiking path with less sensitivity to UST developments.	Market prices in sharper BoJ rate hiking cycle due to factors such as a renewed acceleration in domestic inflation.
TONA OIS 2s5s steepener (DV01 1.5 vs 1)	23bp	29-Sep-23	Attractive carry + rolldown with limited sensitivity to US rates developments as well as market pricing of BoJ rate hike.	Potential risks include (1) the threat of 5y rallying massively under a significant "risk-off" scenario and (2) the possibility of markets suddenly pricing in a much steeper BoJ rate hike trajectory.
Long OAT Nov 32 yy ASW vs EUR 6m vs OAT May 53 yy ASW vs EUR 6m	78.5bp	11-Aug-23	The 10s30s OAT ASW has decoupled from the Bund ASW, and should benefit from the renewed issuance and Bund ASW widening move that we expect from mid-September.	A major widening of the 10y OAT/Bund spread, which historically leads to a flatter 10s30s OAT as investors sell the OAT future.
Receive EUR 30s50s swap (vs 6m)	-39.4bp	3-Mar-23	30s50s is ~3/4 bp too steep, according to our model.	A key risk to the trade would be a collapse in rates volatility.
Currency and Foreign Exchange				

TRADE	ENTRY LEVEL	ENTRY DATE	RATIONALE	RISKS
Short GBP/NOK	13.589	12-Nov-23	BoE dovishness should contrast with a relatively hawkish Norges Bank while slowing Norges Bank FX purchases should reduce downward pressure on NOK.	Norwegian data slow markedly, leading to significant Norges Bank rate cuts.
Short AUD/JPY	96.305	12-Nov-23	Falling US yields should support a rising JPY while AUD should remain under pressure as Chinese growth fails to rebound meaningfully.	US yields remain elevated, weighing on JPY, or Chinese growth improves markedly, bolstering China-sensitive AUD.
Long 1y USD/CHF 10-delta strangle (0.7775 put, 0.9550 call)	0.92%	3-Nov-23	Despite heightened geopolitical tensions and an inflationary cycle attempting to come to an end, implied volatility in CHF (a safe-haven asset) remains subdued both relative to itself (historically) and safe-haven peers. With the spectrum of probable outcomes already broad and arguably broadening further, the future is less certain rather than more certain. Hence, we take advantage of the low implied volatility, particularly low implied tail volatility (as proxied by 10-delta butterfly spreads) and go long a 1y 10-delta strangle.	Geopolitical conflicts are resolved in an orderly fashion and the global inflationary cycle comes to an orderly end, thus materializing low volatility.
Long JPY vs risk currency basket	100	18-Aug-23	The continued risk-off move can induce potential unwinding of JPY carry trades.	Recovery in risk sentiment.

Inflation- Linked Bonds

TRADE	ENTRY LEVEL	ENTRY DATE	RATIONALE	RISKS
Long Feb44 iota	11bp	27-Apr-23	The Feb44 iota should widen amid (1) uncertainty in the financial system, and (2) increased cut pricing.	The primary risks to this trade are (1) the fading of rate cuts priced in 2023, and (2) strong signs that banking stress is in the rearview mirror.
Long OATei31	0.35%	10-Mar-23	Livret A hedging flows should support lower real yields across the OATei term structure and especially the sub 10-year sector. We believe demand for real yield paper will overshadow any issuance or risk-off sentiment.	A pick-up in deflation fears that would reduce hedging needs.
Buy IL28	-0.73%	18-Nov-22	Growth is likely to slow with fears of a recession becoming more prominent, and weaker growth usually leads to demand for FI assets. With inflation not falling significantly, we suspect that momentum will swing from recession into stagflation mode. Furthermore, we envision a gradual shift from the BoE to the dovish end of the spectrum.	A more hawkish BoE that will ultimately push real yields higher.

Short -Duration Strategy

TRADE	ENTRY LEVEL	ENTRY DATE	RATIONALE	RISKS
SOFR/TONA basis 1y 4s9s flattener	-5bp	8-Jun-23	Aiming to get the attractive carry with hedging the risk of USD funding concern led by US hard landing scenario.	The main risk to this trade is a significant rally in USD/JPY necessitating mark-to-market principal adjustments and thereby causing Japanese investors to build new XCCY basis receiving positions in the short- to medium-term zone to maintain their initial USD principal.

Exhibit 88: History of recommendations

Receive EUR 30s50s Swap

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG
EUSA30 Curncy	13-Jan-53	EUR 30s50s steepener	13-Jan-23	0.02	10-Feb-23	0.024				EUSA30 Curncy
EUSA50 Curncy	13-Jan-53	EUR 30s50s steepener	13-Jan-23	0.02	10-Feb-23	0.0199				EUSA50 Curncy
EUSA5 Curncy	10-Feb-28	Receive 5s10s30s Eur swap fly	10-Feb-23	2.99	03-Mar-23	3.441				EUSA5 Curncy
EUSA10 Curncy	10-Feb-33	Receive 5s10s30s Eur swap fly	10-Feb-23	2.91	03-Mar-23	3.289				EUSA10 Curncy
EUSA30 Curncy	10-Feb-53	Receive 5s10s30s Eur swap fly	10-Feb-23	2.41	03-Mar-23	2.74				EUSA30 Curncy
EUSA5 Curcny	10-Mar-28	Pay EUR 5s10s30s swap (vs. 6m)	10-Mar-23	3.26	17-Mar-23	2.385				EUSA5 Curcny
EUSA10 Curncy	10-Mar-33	Pay EUR 5s10s30s swap (vs. 6m)	10-Mar-23	3.08	17-Mar-23	2.965				EUSA10 Curncy
EUSA30 Curncy	10-Mar-63	Pay EUR 5s10s30s swap (vs. 6m)	10-Mar-23	2.58	17-Mar-23	3.085				EUSA30 Curncy
5y EUR swap (vs. 6m)	19-May-28	Pay EUR 5s10s30s swap fly	19-May-23	3.13	26-Jul-23	3.217				EUSA5 Curncy
10y EUR swap (vs. 6m)	19-May-33	Pay EUR 5s10s30s swap fly	19-May-23	3.09	26-Jul-23	3.057				EUSA10 Curncy
30y EUR swap (vs. 6m)	19-May-53	Pay EUR 5s10s30s swap fly	19-May-23	2.74	26-Jul-23	2.637				EUSA30 Curncy

Long OAT Nov 32 yy ASW versus EUR 6m versus OAT May 53 yy ASW versus EUR 6m

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG
SPGB 1.9 10/31/52	31-Oct-52	10s30s flatteners in Spain vs France	02-Dec-22	3.23	24-Feb-23	3.95				ES0000012K46
SPGB 2.55 10/31/32	31-Oct-32	10s30s flatteners in Spain vs France	02-Dec-22	2.84	24-Feb-23	3.5				ES0000012K61
FRTR 2 11/25/32	25-Nov-32	10s30s flatteners in Spain vs France	02-Dec-22	2.29	24-Feb-23	3.01				FR001400BKZ3
FRTR 0 ¾ 05/25/52	25-May-52	10s30s flatteners in Spain vs France	02-Dec-22	2.44	24-Feb-23	3.23				FR0013480613
FRTR 2 11/25/32	25-Nov-23	Buy OAT 2% Nov 32 vs Bund Aug 1.7% 32	03-Feb-23	2.64	27-Sep-23	3.3	35bp			FR001400BKZ3
DBR 1.7 08/15/32	15-Aug-32	Buy OAT 2% Nov 32 vs Bund Aug 1.7% 32	03-Feb-23	2.16	27-Sep-23	2.73	35bp			DE0001102606

Pay GBP Swap 2s5s10s

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG
BPSWS2 BGN Curncy	4-Oct-24	Receive GBP swap 2s5s10s	05-Oct-22	25bp	06-Jan-23	-13bp	5bp	35bp		BPSWS2 BGN Curncy
BPSWS5 BGN Curncy	4-Oct-27	Receive GBP swap 2s5s10s	05-Oct-22	25bp	06-Jan-23	-13bp	5bp	35bp		BPSWS5 BGN Curncy
BPSWS10 BGN Curncy	4-Oct-32	Receive GBP swap 2s5s10s	05-Oct-22	25bp	06-Jan-23	-13bp	5bp	35bp		BPSWS10 BGN Curncy
2y SONIA	24-Mar-25	Pay 2y SONIA	24-Mar-23	3.89%	28-Apr-23	4.52%	4.89%	3.39%		BPSWS2 Curncy
BPSWS5 Curncy	5-May-28	Receive GBP 2s5s10s swap (sonia)	05-May-23	-22bp	15-Sep-23	-32.2bp	-40bp	-10bp		BPSWS5 Curncy
BPSWS2 Curncy	5-May-25	Receive GBP 2s5s10s swap (sonia)	05-May-23	-22bp	15-Sep-23	-32.2bp	-40bp	-10bp		BPSWS2 Curncy
BPSWS10 Curncy	5-May-33	Receive GBP 2s5s10s swap (sonia)	05-May-23	-22bp	15-Sep-23	-32.2bp	-40bp	-10bp		BPSWS10 Curncy
UKT 1 ⅝ 10/22/28 Corp	22-Oct-28	Sell 1F 28 on ASW	27-Jul-23	38bp	06-Oct-23	28.7	23bp	46bp		GB00BFX0ZL78
BPSWS5 BGN Curncy	27-Jul-28	Sell 1F 28 on ASW	27-Jul-23	38bp	06-Oct-23	28.7	23bp	46bp		BPSWS5 BGN Curncy
2y EUR swap (vs. 6m)	8-Sep-25	GBP/EUR 2s10s box (pay GBP)	08-Sep-23	-51bp	03-Nov-23	-34bp	-20bp	-65bp		EUSA2 Curncy
10y EUR swap (vs. 6m)	8-Sep-33	GBP/EUR 2s10s box (pay GBP)	08-Sep-23	-51bp	03-Nov-23	-34bp	-20bp	-65bp		EUSA10 Curncy
2y GBP swap	8-Sep-25	GBP/EUR 2s10s box (pay GBP)	08-Sep-23	-51bp	03-Nov-23	-34bp	-20bp	-65bp		BPSWS2 Curncy
10y GBP swap	8-Sep-33	GBP/EUR 2s10s box (pay GBP)	08-Sep-23	-51bp	03-Nov-23	-34bp	-20bp	-65bp		BPSWS10 Curncy

Sell BTP 4.4% May 2033 versus Buy DBR 1.7% Aug 2032

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG
DBR 1.7 08/15/32	15-Aug-32	2s10s BTP vs BUNDS	18-Nov-22	2.08	20-Jan-23	2.11				DE0001102606
DBR 1 08/15/24	15-Aug-24	2s10s BTP vs BUNDS	18-Nov-22	2.11	20-Jan-23	2.53				DE0001102366
BTPS 2 ½ 12/01/32	12-Jan-32	2s10s BTP vs BUNDS	18-Nov-22	4.03	20-Jan-23	3.91				IT0005494239
BTPS 0 08/15/24	15-Aug-24	2s10s BTP vs BUNDS	18-Nov-22	2.74	20-Jan-23	2.97				IT0005452989
FRTR 2 11/25/32	25-Nov-23	Buy OAT 2% Nov 32 vs Bund Aug 1.7% 32	03-Feb-23	2.64	27-Sep-23	3.3	35bp			FR001400BKZ3
DBR 1.7 08/15/32	15-Aug-32	Buy OAT 2% Nov 32 vs Bund Aug 1.7% 32	03-Feb-23	2.16	27-Sep-23	2.73	35bp			DE0001102606
DBR 1.7 08/15/32 Corp	15-Aug-23	Sell BTP 4.4% May 2033 vs buy DBR 1.7% Aug 2032	04-Aug-23	2.51	29-Sep-23	2.774		153.0		DE0001102606
BTPS 4.4 05/01/33 Corp	1-May-33	Sell BTP 4.4% May 2033 vs buy DBR 1.7% Aug 2032	04-Aug-23	4.15	29-Sep-23	4.691		153.0		IT0005518128

Pay EUR 5y5y Swap

Instrument	Maturity	Trade	Entry Date	Entry Level	Exit Date	Exit Level	Target/ Objective	Stop/Re-assess	Size of Trade or Unit/Notional	CUSIP/ISIN/ BLOOMBERG
EUSA0505 Curncy	24-Oct-27	Receive EUR 5y5y	25-Oct-22	3.32	10-Mar-23	2.88				EUSA0505 Curncy
EUSA0505 Curncy	5y	Receive EUR 5y5y Swap	13-Nov-22	0.03	05-Apr-23	2.81				EUSA0505 Curncy

Source: Morgan Stanley Research

Definition of terms

Buy/Long: The analyst expects the total or excess return (depending on the nature of the recommendation) of the instrument or issuer that is the subject of the investment recommendation to be positive over the relevant time period.

Sell/Short: The analyst expects the total or excess return (depending on the nature of the recommendation) of the instrument or issuer that is the subject of the investment recommendation to be negative over the relevant time period.

Selling protection or Buying Risk: The analyst expects that the price of protection against the event occurring will decrease over the relevant time period.

Buying protection or Selling Risk: The analyst expects the price of protection against the event occurring will increase over the relevant time period.

Pay: The analyst expects that over the specified time period the variable rate underlying the swap agreement that is the subject of the investment recommendation will increase.

Receive: The analyst expects that over the specified time period the variable rate underlying the swap agreement that is the subject of the investment recommendation will decrease.

Unless otherwise specified, the time frame for recommendations included in the Morgan Stanley Fixed Income Research reports is 1 - 3 months and the price of financial instruments mentioned in the recommendation is as at the date and time of publication of the recommendation.

When more than one issuer or instrument is included in a recommendation, analyst expects one part of the trade to outperform the other trade or combination of other trades included in the recommendation on a relative basis.

For important disclosures related to the proportion of all investment recommendations over the past 12 months that fit each of the categories defined above, and the proportion of issuers corresponding to each of those categories to which Morgan Stanley has supplied material services, please see the Morgan Stanley disclosure at https://ny.matrix.ms.com/eqr/article/webapp/f15cba8e-6437-11ee-854e-201c12fd5adb

Government Bond Ratings

Exhibit 89: Government Bond Ratings

Country		Aaa/ AAA	Aa1/ AA+	Aa2/ AA	Aa3/ AA-	A1/ A+	A2/ A	A3/ A-	Baa1/ BBB+	Baa2/ BBB	Baa3/ BBB-	Ba1/ BB+	Ba2/ BB	Ba3/ BB-	B1/ B+	B2/ B	B3/ B-	Below B3/ B-
US	Moody	NEG																
	S&P		STA															
	Fitch		STA															
JPN	Moody					STA												
	S&P					STA												
	Fitch						STA											
UK	Moody				STA													
	S&P			STA														
	Fitch				NEG													
GER	Moody	STA																
	S&P	STA																
	Fitch	STA																
FRA	Moody			STA														
	S&P			NEG														
	Fitch				STA													
AUT	Moody		STA															
	S&P		STA															
	Fitch		STA															
NETH	Moody	STA																
	S&P	STA																
	Fitch	STA																
FIN	Moody		STA															
	S&P		STA															
	Fitch		STA															
BEL	Moody				STA													
	S&P			STA														
	Fitch				NEG													
SPA	Moody								STA									
	S&P						STA											
	Fitch							STA										
ITA	Moody										STA							
	S&P									STA								
	Fitch									STA								
IRE	Moody				STA													
	S&P			STA														
	Fitch				POS													
POR	Moody							STA										
	S&P								POS									
	Fitch							STA										
GRE	Moody											STA						
	S&P										STA							
	Fitch										STA							
Australia	Moody	STA																
	S&P	STA																
	Fitch	STA																
New Zealand	Moody	STA																
	S&P	STA																
	Fitch		STA															
Canada	Moody	STA																
	S&P	STA																
	Fitch		STA															

Source: Morgan Stanley Research, Moody's, Standard and Poor, Fitch
STA: Outlook Stable, NEG: Outlook Negative, DEV: Outlook Developing, OW-: On Watch Negative, POS: Outlook Positive, SD: Selective Default

Global Macro Strategy Team

MORGAN STANLEY & CO. LLC	**Matthew Hornbach, CMT** Matthew.Hornbach@morganstanley.com	Global Head of Macro Strategy	+1 212 761-1837
	Guneet Dhingra, CFA Guneet.Dhingra@morganstanley.com	Head of US Rates Strategy	+1 212 761-1445
	Efrain Tejeda, CFA	US Rates Strategist	+1 212 761-3529
	Martin Tobias, CFA, CMT	US Rates Strategist	+1 212 761-6076
	Francesco Grechi	US Rates Strategist	+1 212 761-1009
	Allen Liu	US Rates Strategist	+1 212 761-6049
MORGAN STANLEY & CO. LLC	**Andrew Watrous**	G10 FX Strategist	+1 212 761-5287
	Zoe K. Strauss	G10 FX Strategist	+1 212 761-0407
	Simon Waever Simon.Waever@morganstanley.com	Head of EM Sovereign Credit and Latin America Fixed Income Strategy	+1 212 296-8101
	Ioana Zamfir	Latin America Macro Strategist	+1 212 761-4012
	Emma Cerda	Latin America Sovereign Credit	+1 212 761-2344
	Eli Carter	Latin America Macro Strategist	+1 212 761-4703
MORGAN STANLEY & CO. INTERNATIONAL PLC	**James K. Lord** James.Lord@morganstanley.com	Global Head of FXEM Strategy	+44 20 7677-3254
	Eric Oynoyan Eric.Oynoyan@morganstanley.com	Head of European Rates Strategy	+44 20 7425-1945
	Lorenzo Testa	European Rates Strategist	+44 20 7677-0337
	Fabio Bassanin	UK Rates Strategist	+44 20 7425-1869
	Marie-Anais Francois	European Rates Strategist	+44 20 7425-1877
	David S. Adams, CFA David.S.Adams@morganstanley.com	Head of G10 FX Strategy	+44 20 7425-3518
	Wanting Low	G10 FX Strategist	+44 20 7425-6841
	Dominic Krummenacher	G10 FX Strategist	+44 20 7425-9781
	Neville Mandimika	CEEMEA Sovereign Credit Strategist	+44 20 7425-2509
	Pascal Bode	EM Sovereign Credit Strategist	+44 20 7425-3282
MORGAN STANLEY ASIA LIMITED+	**Min Dai, CFA** Min.Dai@morganstanley.com	Head of AXJ Macro Strategy	+852 2239-7983
	Gek Teng Khoo	AXJ Macro Strategist	+852 3963-0303
MORGAN STANLEY MUFG SECURITIES CO., LTD.	**Koichi Sugisaki** Koichi.Sugisaki@morganstanley.com	Head of Japan Macro Strategy	+81 3 6836-8428

Disclosure Section

The information and opinions in Morgan Stanley Research were prepared or are disseminated by Morgan Stanley & Co. LLC and/or Morgan Stanley C.T.V.M. S.A. and/or Morgan Stanley México, Casa de Bolsa, S.A. de C.V. and/or Morgan Stanley Canada Limited and/or Morgan Stanley & Co. International plc and/or Morgan Stanley Europe S.E. and/or RMB Morgan Stanley Proprietary Limited and/or Morgan Stanley MUFG Securities Co., Ltd. and/or Morgan Stanley Capital Group Japan Co., Ltd. and/or Morgan Stanley Asia Limited and/or Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and/or Morgan Stanley Taiwan Limited and/or Morgan Stanley & Co International plc, Seoul Branch, and/or Morgan Stanley Australia Limited (A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents), and/or Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents), and/or Morgan Stanley India Company Private Limited having Corporate Identification No (CIN) U22990MH1998PTC115305, regulated by the Securities and Exchange Board of India ("SEBI") and holder of licenses as a Research Analyst (SEBI Registration No. INH000001105), Stock Broker (SEBI Stock Broker Registration No. INZ000244438), Merchant Banker (SEBI Registration No. INM000011203), and depository participant with National Securities Depository Limited (SEBI Registration No. IN-DP-NSDL-567-2021) having registered office at 18th Floor, Tower 2, One World Center, Plot- 841, Jupiter Textile Mill Compound, Senapati Bapat Marg, Lower Parel, Mumbai 400013, India Telephone no. +91-22-61181000; Compliance Officer Details: Mr. Anil Shenoy, Tel. No.: +91-22-61181000 or Email: Anil.Shenoy@morganstanley.com; Grievance officer details: Mr. Anil Shenoy, Tel. No.: +91-22-61181000 or Email: msic-compliance@morganstanley.com which accepts the responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research, and their affiliates (collectively, "Morgan Stanley").

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/researchdisclosures, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.

For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Aryaman .; David S. Adams, CFA; Fabio Bassanin, CFA; Guneet Dhingra, CFA; Marie-Anais C Francois; Francesco Grechi; Matthew Hornbach; Dominic J Krummenacher; Allen F Liu; James K Lord; Wanting Low; Eric S Oynoyan; Zoe K Strauss; Koichi Sugisaki; Efrain A Tejeda, CFA; Lorenzo Testa; Martin W Tobias, CFA; Andrew M Watrous.

.

Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at www.morganstanley.com/institutional/research/conflictpolicies. A Portuguese version of the policy can be found at www.morganstanley.com.br

Important Regulatory Disclosures on Subject Companies

Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of Austria, Belgium, Germany, United States of America.

Within the last 12 months, Morgan Stanley has received compensation for investment banking services from Austria, Belgium, Germany, Italy.

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from Australia, Austria, Belgium, Canada, France, Germany, Italy, Japan, United Kingdom, United States of America.

Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from Austria, Germany, Italy.

Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: Australia, Austria, Belgium, Canada, France, Germany, Italy, Japan, United Kingdom, United States of America.

Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following company: Austria, France, Germany, Italy, New Zealand.

The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

Global Stock Ratings Distribution

(as of November 30, 2023)

The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm.

For disclosure purposes only (in accordance with FINRA requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1352	37%	273	43%	20%	605	39%
Equal-weight/Hold	1667	46%	303	47%	18%	708	46%
Not-Rated/Hold	3	0%	0	0%	0%	1	0%
Underweight/Sell	591	16%	64	10%	11%	221	14%
Total	3,613		640			1535	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

Analyst Stock Ratings

Overweight (O or Over) - The stock's total return is expected to exceed the total return of the relevant country MSCI Index or the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis over the next 12-18 months.

Equal-weight (E or Equal) - The stock's total return is expected to be in line with the total return of the relevant country MSCI Index or the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis over the next 12-18 months.

Not-Rated (NR) - Currently the analyst does not have adequate conviction about the stock's total return relative to the relevant country MSCI Index or the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U or Under) - The stock's total return is expected to be below the total return of the relevant country MSCI Index or the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Important Disclosures for Morgan Stanley Smith Barney LLC & E*TRADE Securities LLC Customers

Important disclosures regarding the relationship between the companies that are the subject of Morgan Stanley Research and Morgan Stanley Smith Barney LLC or Morgan Stanley or any of their affiliates, are available on the Morgan Stanley Wealth Management disclosure website at www.morganstanley.com/online/researchdisclosures. For Morgan Stanley specific disclosures, you may refer to www.morganstanley.com/researchdisclosures.

Each Morgan Stanley research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC and E*TRADE Securities LLC. This review and approval is conducted by the same person who reviews the research report on behalf of Morgan Stanley. This could create a conflict of interest.

Other Important Disclosures

Morgan Stanley & Co. International PLC and its affiliates have a significant financial interest in the debt securities of Australia, Austria, Belgium, Canada, France, Germany, Italy, Japan, New Zealand, United Kingdom.

Morgan Stanley Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. In addition, certain Research publications are intended to be updated on a regular periodic basis (weekly/monthly/quarterly/annual) and will ordinarily be updated with that frequency, unless the Research Analyst and Research Management determine that a different publication schedule is appropriate based on current conditions.

Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Matrix at http://www.morganstanley.com/matrix.

Morgan Stanley Research is provided to our clients through our proprietary research portal on Matrix and also distributed electronically by Morgan Stanley to clients. Certain, but not all, Morgan Stanley Research products are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience. For access to all available Morgan Stanley Research, please contact your sales representative or go to Matrix at http://www.morganstanley.com/matrix.

Any access and/or use of Morgan Stanley Research is subject to Morgan Stanley's Terms of Use (http://www.morganstanley.com/terms.html). By accessing and/or using Morgan Stanley Research, you are indicating that you have read and agree to be bound by our Terms of Use (http://www.morganstanley.com/terms.html). In addition you consent to Morgan Stanley processing your personal data and using cookies in accordance with our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html), including for the purposes of setting your preferences and to collect readership data so that we can deliver better and more personalized service and products to you. To find out more information about how Morgan Stanley processes personal data, how we use cookies and how to reject cookies see our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html).

If you do not agree to our Terms of Use and/or if you do not wish to provide your consent to Morgan Stanley processing your personal data or using cookies please do not access our research.

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

The "Important Regulatory Disclosures on Subject Companies" section in Morgan Stanley Research lists all companies mentioned where Morgan Stanley owns 1% or more of a class of common equity securities of the companies. For all other companies mentioned in Morgan Stanley Research, Morgan Stanley may have an investment of less than 1% in securities/instruments or derivatives of securities/instruments of companies and may trade them in ways different from those discussed in Morgan Stanley Research. Employees of Morgan Stanley not involved in the preparation of Morgan Stanley Research may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned and may trade them in ways different from those discussed in Morgan Stanley Research. Derivatives may be issued by Morgan Stanley or associated persons.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley Research personnel may participate in company events such as site visits and are generally prohibited from accepting payment by the company of associated expenses unless pre-approved by authorized members of Research management.

Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.

To our readers based in Taiwan or trading in Taiwan securities/instruments: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Any non-customer reader within the scope of Article 7-1 of the Taiwan Stock Exchange Recommendation Regulations accessing and/or receiving Morgan Stanley Research is not permitted to provide Morgan Stanley Research to any third party (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities regarding Morgan Stanley Research which may create or give the appearance of creating a conflict of interest. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments.

Certain information in Morgan Stanley Research was sourced by employees of the Shanghai Representative Office of Morgan Stanley Asia Limited for the use of Morgan Stanley Asia Limited. Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only.

Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A. located at Av. Brigadeiro Faria Lima, 3600, 6th floor, São Paulo - SP, Brazil; and is regulated by the Comissão de Valores Mobiliários; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V which is regulated by Comision Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Morgan Stanley Bank Asia Limited; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Morgan Stanley Bank Asia Limited, Singapore Branch (Registration number T14FC0118J); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited having Corporate Identification No (CIN) U22990MH1998PTC115305, regulated by the Securities and Exchange Board of India ("SEBI") and holder of licenses as a Research Analyst (SEBI Registration No. INH000001105); Stock Broker (SEBI Stock Broker Registration No. INZ000244438), Merchant Banker (SEBI Registration No. INM000011203), and depository participant with National Securities Depository Limited (SEBI Registration No. IN-DP-NSDL-567-2021) having registered office at 18th Floor, Tower 2, One World Center, Plot- 841, Jupiter Textile Mill Compound, Senapati Bapat Marg, Lower Parel, Mumbai 400013, India Telephone no. +91-22-61181000; Compliance Officer Details: Mr. Anil Shenoy, Tel. No.: +91-22-61181000 or Email: Anil.Shenoy@morganstanley.com; Grievance officer details: Mr. Anil Shenoy, Tel. No.: +91-22-61181000 or Email: msic-compliance@morganstanley.com; in Canada by Morgan Stanley Canada Limited; in Germany and the European Economic Area where required by Morgan Stanley Europe S.E., authorised and regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) under the reference number 149169; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, disseminates in the UK research that it has prepared, and research which has been prepared by any of its affiliates, only to persons who (i) are investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"); (ii) are persons who are high net worth entities falling within Article 49(2)(a) to (d) of the Order; or (iii) are persons to whom an invitation or inducement to