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Global Macro Strategist | Global

Top 10 Surprises for 2023

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.

Surprise #1: Covid-19 in China leads to global deflation fears: An overloaded healthcare system in China leads to weaker growth, lower commodity prices, fears of global deflation, a weaker USD vs. EUR but stronger USD vs. EM, earlier DM rate cuts and steeper DM yield curves.

Surprise #2: The Fed doesn't cut rates, even in a recession: Even as growth moves into recession territory, inflation stays sticky and lags growth, keeping the Fed on hold through 2023 amid a recession – much like Paul Volcker's Fed in 1982.

Surprise #3: Dysfunctional UST market forces Fed to pause/end QT: Challenged liquidity continues to pose a threat to QT and could force the Fed to intervene next year.

Surprise #4: 2H23 ECB rate cuts on sharply falling house prices: An acceleration in the decline in house prices, leading central banks to cut rates as soon as 2H23.

Surprise #5: Renewed gilt underperformance due to net supply: Lack of a compositional change in supply leads to high net DV01 issued in FY 2023-24 and hence gilts underperform other bond markets.

Surprise #6: Nothing from the BoJ: The BoJ keeps the status quo even under the new BoJ governor, given a global growth slowdown and lack of a wage-inflation spiral.

Surprise #7: The bull case for GBP: A material fall in energy prices, the return of labor supply and/or a more resilient consumer could lead to a constructive UK growth (and hence GBP) outlook

Surprise #8: Citizens could cushion a Canadian condo crash: A surge in immigration prevents a housing crash from lifting USD/CAD.

Surprise #9: The Fed reviews its 2% target: The 2025 framework review encourages the Fed to consider altering its inflation target amid mounting political pressures.

Surprise #10: EUR and UK breakevens heading to record highs: De-risking from pension schemes amidst low linker supply could send breakevens to new highs in both markets.

This is our last publication of 2022. Thank you for reading our research and considering our views. We wish you the best of luck and health in 2023.

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Surprise #1: Covid-19 in China leads to global deflation fears

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Healthcare overload leads to weaker growth in China

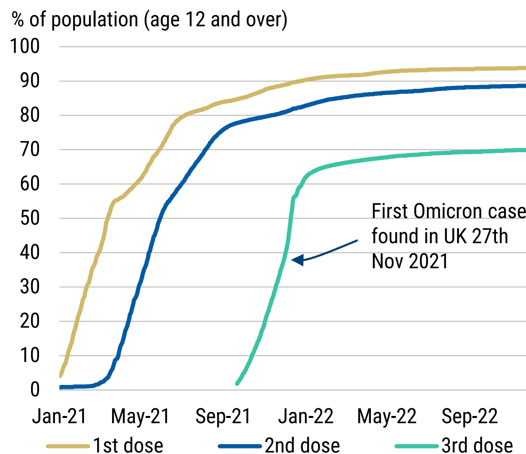
One of the big surprises to hit global macro markets as we approached the end 2022 was the speed with which Beijing pivoted away from Covid Zero. Many in the market expected the government would aim for a reopening in the spring of next year and use the intervening months to boost vaccinations and healthcare capacity.

Events have led to an accelerated timeline, with a winter reopening now under way. This accelerated timeline alongside more proactive policy easing from Beijing has led our China economics team to upgrade its growth forecast for 2023 to 5.4%.

Investors and markets now generally expect Beijing to be determined to push on with reopening as the Covid case count surges over the coming weeks and months, even if it's a bumpy ride. Living with Covid would be the new normal in China in 2023, just like it was for the rest of the world in 2022. This is the consensus view.

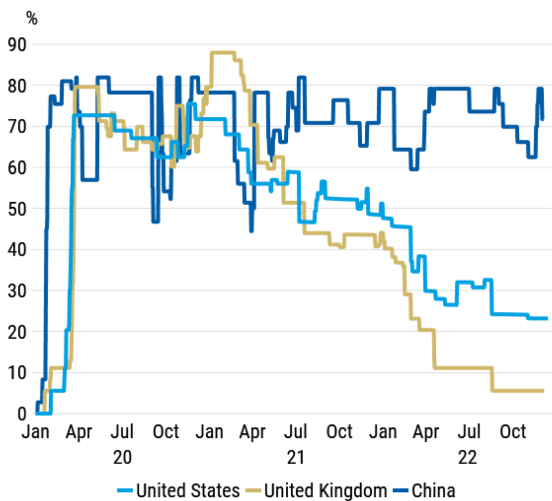
The risk to this view is that China faces waves of surging Covid cases over the coming months, testing healthcare capacity. Nobody would want to reimpose restrictions, when the decision had previously been made to open the economy.

Exhibit 1: Significant progress on vaccinations in the UK ahead of Omicron



Source: www.gov.uk, Morgan Stanley Research

Exhibit 2: University of Oxford Lockdown "Stringency Index"



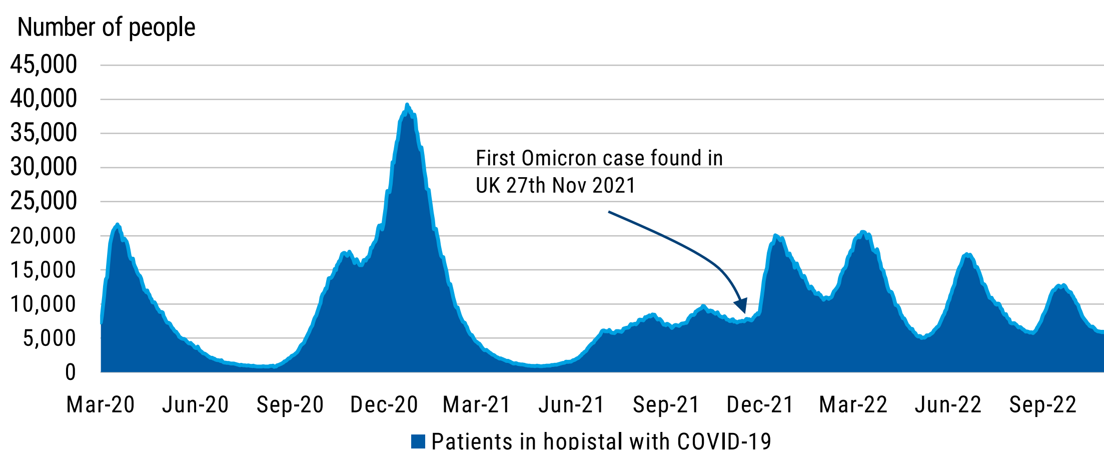
Source: Macrobond, Morgan Stanley Research

But if healthcare systems become overloaded, then restrictions may need to be reimposed temporarily to simply manage the caseload and give authorities time to make more progress on vaccination and boost healthcare capacity more generally. Such an outcome is hardly farfetched. In the UK, for example, the discovery of the first cases of the Omicron variant was announced on November 27, 2021.

The initial phase of the UK vaccination campaign was in the rearview mirror, with 2nd doses largely complete and a significant proportion of the elderly population having received their 3rd dose too (see Exhibit 1). By this time, restrictions had started to be lifted in the UK, as is currently happening in China, though this is not yet reflected in the Oxford Stringency Index data (see Exhibit 2).

As Omicron swept through the UK, the number of patients in hospital with Covid-19 surged (see Exhibit 3). The situation was serious enough for the UK to re-impose some restrictions on November 27, 2021, as a precautionary measure, and impose other restrictions, such as a two-week circuit breaker, later in December of the same year.

Exhibit 3: Omicron driven hospitalisations in UK risks renewed restrictions in the UK despite strong vaccination rates



Source: www.gov.uk, Morgan Stanley Research

As our China team has pointed out, the effect of Omicron in other economies around the world suggests there could be a sharp but short-lived impact on China's economy, with the largest effect on demand rather than supply.

This could lead to a drop in mobility indicators (which could explain why oil prices have been trading so softly recently), with Covid cases peaking around the Lunar New Year, before infections gradually come lower and plateau by the end of Q1, in their view. (see China: Going For Growth).

The hit to activity in the short term seems baked in at this point, given the experience from other economies that have gone through an Omicron wave. **However, healthcare capacity in China has not yet been tested. A surge in hospitalizations could force a temporary reimposition of restrictions across the country, leading to weaker growth in China in 2023.**

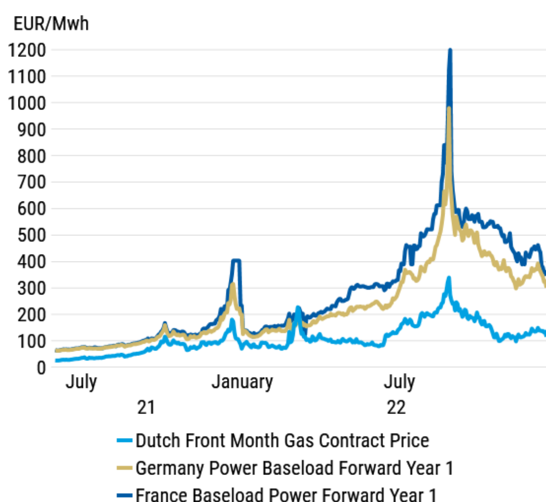
What would weaker growth in China mean for macro markets?

Weaker growth in China would most likely lead to **another round of weakness for global commodity prices**. This would be double whammy for Emerging Markets (EM) that were hoping for (1) a pick-up in terms of trade to smooth over growth and debt sustainability concerns, and (2) stronger growth from China to boost their export volumes.

Lower commodity prices would benefit Europe, though. High energy prices have been a major reason that investors remain more cautious about Europe's long-term prospects. Of course, the direct effect of a China slowdown on Europe's growth might be negative. But, if energy prices fell further toward levels seen prior to the Russian invasion of Ukraine, growth sentiment may improve nevertheless.

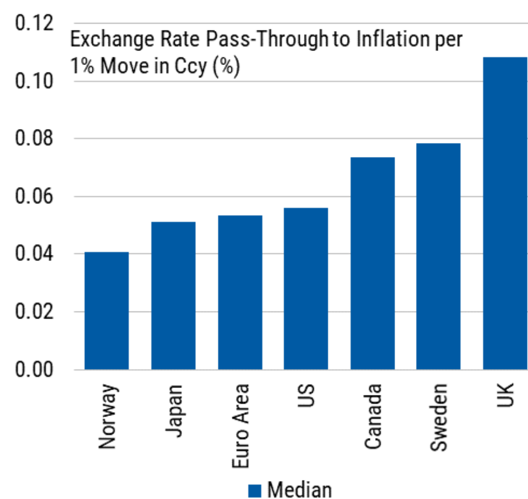
Exhibit 4 shows that electricity prices in Germany and France have already moved lower, but remain above more "normal" levels. A surprise delay to China's reopening could help push overall energy prices down further.

Exhibit 4: French and German electricity prices are already on a downward trend



Source: Macrobond, Morgan Stanley Research

Exhibit 5: Our economists' estimates of FX pass-through to inflation



Source: Morgan Stanley Research estimates; Note: We take the median of the range of estimates from our global economics team, which are computed based on two different statistical approaches and different sample periods (see more here).

Lower energy prices could persuade the ECB that inflation won't reach recently revised forecasts (6.3% still in 2023 and 3.4% in 2024). The combination of improvement in consumer purchasing power and a less hawkish ECB could also help buoy growth expectations in Europe too.

Indeed, Eurozone growth has already proved more resilient than many expected, as shown by the upward revisions to 2023 GDP growth from our economists recently. **More optimistic views on growth would support European assets, and could boost the EUR through capital inflows.**

A stronger EUR could also help lower inflation in the Eurozone, further helping activity (see Exhibit 5). In sum, a delayed reopening and slower growth in China could lead to renewed USD strength against EM currencies and G10 commodity currencies such as AUD, CAD, and NOK. But, it could also lead to USD weakness vs. the EUR.

In the US, lower energy prices could refocus the inflation narrative on headline CPI deflation. By our estimates, $54/bbl WTI futures or $183/gallon RBOB gasoline futures would place headline CPI inflation at 0% Y/Y, assuming 0% food CPI inflation in June 2023 and Morgan Stanley core CPI inflation forecasts (see Exhibit 6 and Exhibit 7 and our detailed analysis in Could 2023 See Energy-Induced Deflation in the US?.

Exhibit 6: WTI crude oil futures prices needed to see CPI inflation at 0% Y/Y each month in 2023, given CPI food inflation Y/Y outcomes and Morgan Stanley's core CPI inflation base case

	CPI Food (Y/Y %)												
Dates	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Jan-23	($43)	($47)	($50)	($54)	($58)	($62)	($65)	($69)	($73)	($77)	($80)	($84)	($88)
Feb-23	($30)	($34)	($38)	($42)	($46)	($50)	($54)	($58)	($62)	($66)	($70)	($74)	($78)
Mar-23	$2	($2)	($6)	($9)	($13)	($17)	($21)	($25)	($28)	($32)	($36)	($40)	($44)
Apr-23	$5	$1	($3)	($7)	($11)	($15)	($19)	($23)	($27)	($31)	($35)	($39)	($43)
May-23	$36	$32	$28	$24	$20	$15	$11	$7	$3	($1)	($6)	($10)	($14)
Jun-23	$61	$58	$54	$50	$47	$43	$40	$36	$32	$29	$25	$21	$18
Jul-23	$55	$51	$48	$44	$41	$37	$33	$30	$26	$23	$19	$16	$12
Aug-23	$46	$42	$39	$35	$32	$28	$25	$21	$18	$14	$11	$7	$4
Sep-23	$44	$41	$38	$34	$31	$28	$25	$22	$18	$15	$12	$9	$5
Oct-23	$57	$53	$50	$46	$43	$39	$36	$32	$29	$25	$22	$18	$15
Nov-23	$55	$52	$48	$45	$42	$39	$35	$32	$29	$26	$23	$19	$16
Dec-23	$44	$41	$38	$35	$33	$30	$27	$24	$21	$18	$15	$12	$9

Source: Bloomberg, Morgan Stanley Research

Exhibit 7: RBOB gasoline futures prices needed to see CPI inflation at 0% Y/Y each month in 2023, given CPI food inflation Y/Y outcomes and Morgan Stanley's core CPI inflation base case

	CPI Food (Y/Y %)												
Dates	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Jan-23	($132)	($143)	($154)	($166)	($177)	($188)	($199)	($210)	($221)	($232)	($243)	($254)	($266)
Feb-23	($96)	($108)	($120)	($132)	($144)	($156)	($168)	($180)	($192)	($204)	($215)	($227)	($239)
Mar-23	($0)	($13)	($25)	($37)	($50)	($62)	($74)	($87)	($99)	($112)	($124)	($136)	($149)
Apr-23	$10	($3)	($17)	($30)	($44)	($58)	($71)	($85)	($99)	($112)	($126)	($139)	($153)
May-23	$123	$108	$93	$77	$62	$47	$32	$17	$1	($14)	($29)	($44)	($60)
Jun-23	$209	$196	$183	$170	$157	$145	$132	$119	$106	$93	$81	$68	$55
Jul-23	$191	$178	$165	$152	$139	$127	$114	$101	$88	$75	$62	$49	$36
Aug-23	$131	$121	$110	$100	$89	$79	$69	$58	$48	$38	$27	$17	$6
Sep-23	$135	$124	$114	$104	$94	$84	$73	$63	$53	$43	$33	$22	$12
Oct-23	$181	$170	$158	$147	$135	$124	$112	$101	$89	$78	$66	$54	$43
Nov-23	$163	$153	$143	$133	$124	$114	$104	$94	$84	$74	$64	$54	$44
Dec-23	$124	$115	$107	$98	$90	$81	$73	$64	$56	$48	$39	$31	$22

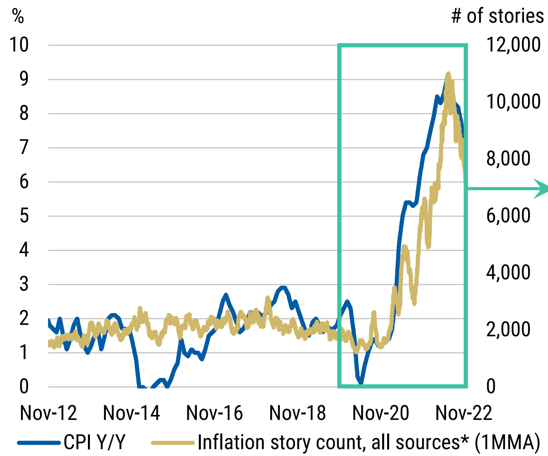
Source: Bloomberg, Morgan Stanley Research

As headline inflation declines, the news media will lose interest in the topic, judging by the history of coverage, as inflation rose dramatically in 2021 and 2022 (see Exhibit 8). Market prices suggest the media will need to find something else on which to focus, and the 2024 US primary and general elections seem like perfect candidates.

While the Fed's December dot-plot suggested a peak policy rate at 5.25% (upper bound), the actual path for inflation will determine how 2023 policy plays out. The median FOMC participant projects headline PCE inflation at 3.1% Q4/Q4 in 2023, which implies headline CPI inflation around 3.5% Y/Y, assuming compression in the CPI/PCE wedge.

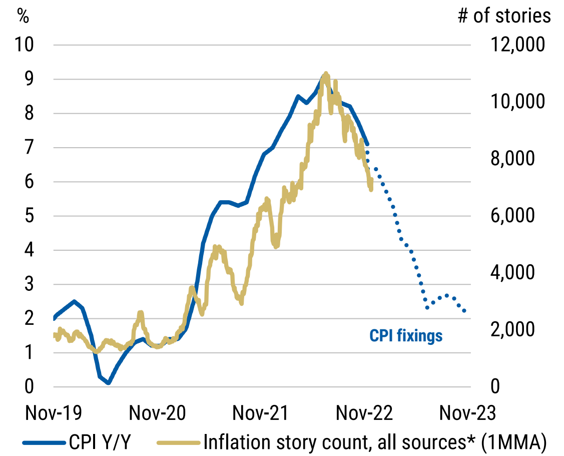
In contrast, the CPI fixings market – from which the price for headline CPI inflation Y/Y derives – suggests headline CPI inflation near 2.2% Y/Y by year-end 2023, similar to the Morgan Stanley forecast (see Exhibit 10).

Exhibit 8: Daily story count for the topic "inflation" vs. US headline CPI inflation Y/Y, past 10 years



Source: Morgan Stanley Research, BLS, Bloomberg NT <GO>
* All sources include stories from Bloomberg, social media, and other news sources

Exhibit 9: Daily story count for the topic "inflation" vs. US headline CPI inflation Y/Y, past 3 years, and CPI fixings



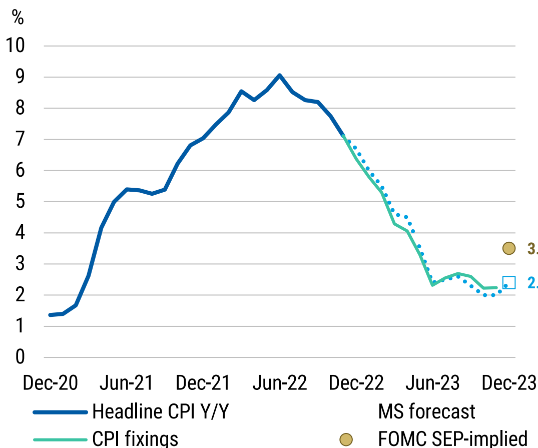
Source: Morgan Stanley Research, BLS, Bloomberg NT <GO>
* All sources include stories from Bloomberg, social media, and other news sources

Indeed, market prices already reflect an outlook closer to Morgan Stanley economists than FOMC participants:

- The CPI fixings market prices in a sharper decline in headline CPI inflation than FOMC participants project (see Exhibit 10).
- The rates market prices peak Fed policy rates below 5% and rate cuts into the end of 2023, in contrast to FOMC participants peak rate at 5.25% and no cuts in 2023 (see Exhibit 11).

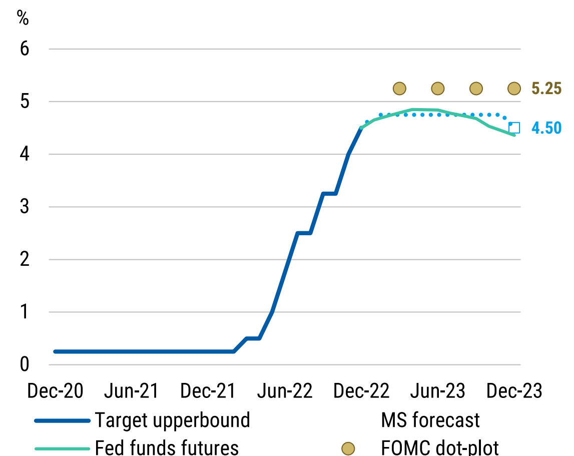
If headline CPI inflation comes in lower than FOMC participants project, and lower than markets price in today, the US rates markets will price in lower policy rates by the end of 2023. Investors will become increasingly skeptical that FOMC participants will remain stoic as headline inflation falls below 2%.

Exhibit 10: US headline CPI inflation Y/Y, Morgan Stanley forecast, CPI fixings market, Bloomberg consensus



Source: Morgan Stanley Research estimates, BLS, Bloomberg

Exhibit 11: Target federal funds rate upper bound, Morgan Stanley forecast, fed funds futures price, median FOMC dot



Source: Morgan Stanley Research estimates, BLS, Bloomberg

Guided by recent FOMC statements, investors could latch on to the idea that monetary policy lags could lead the Fed to cut rates earlier than expected. As headline inflation approaches 2%, FOMC participants could increasingly consider the risk that lags could push inflation below target – unless they move policy to neutral before it's too late.

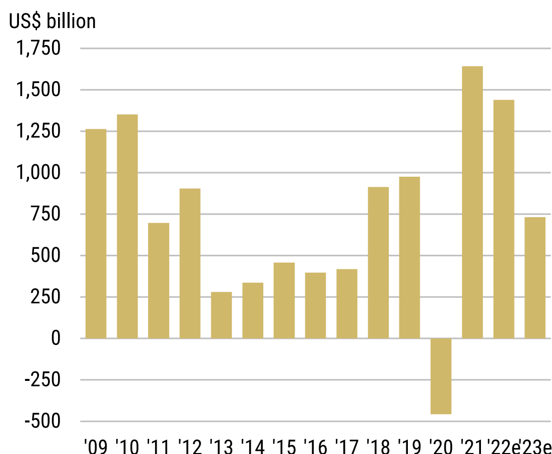
With a longer history of bringing inflation down to the 2% target from above, than bringing inflation up to target from below, FOMC participants could quickly reevaluate the skew of risks around the inflation outlook. As more FOMC participants suggest that restrictive monetary policy may no longer be appropriate, rates markets could bring rates cuts priced in 2024 into 2023.

In doing so, the US yield curve could steepen, led by short and intermediate sectors of the curve. The 5s30s UST curve would likely steepen the most, as both the pricing of rate cuts and pricing of an early end to quantitative tightening would lead to a market-implied reduction in UST supply beyond what investors already expect (see Exhibit 12).

The pricing of more accommodative policy in the US, even if accompanied by the same in Europe, would send the US dollar lower against the euro. The increasing supply of government bond supply in Europe – shown in Exhibit 13 – would offer an attractive destination for capital at yields that are elevated relative to those over the past decade.

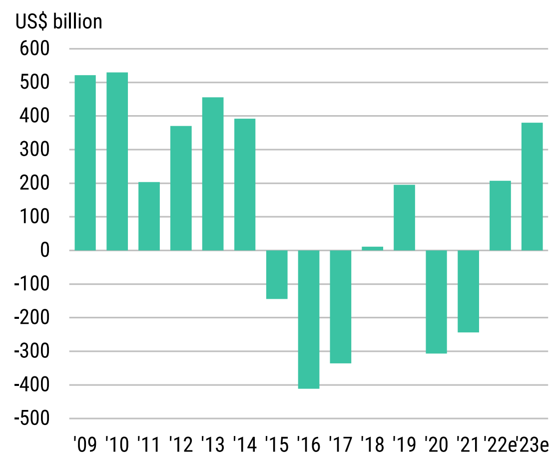
It would be surprising, indeed, for the place from which the Covid-19 pandemic and the subsequent inflationary impulse originated – China – to end up being the source of its ultimate end.

Exhibit 12: Gross coupon UST issuance net of redemptions and Fed purchases, notional in USD, '07-'21 actual, '22-'23 expected



Source: National Treasuries, national central banks, Bloomberg, Morgan Stanley Research forecasts

Exhibit 13: Gross coupon EGB issuance net of redemptions and ECB purchases, notional in USD, '07-'21 actual, '22-'23 expected



Source: National Treasuries, national central banks, Bloomberg, Morgan Stanley Research forecasts

Surprise #2: The Fed doesn't cut rates, even in a recession

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No "Fed put" in 2023 – for markets, or even the economy

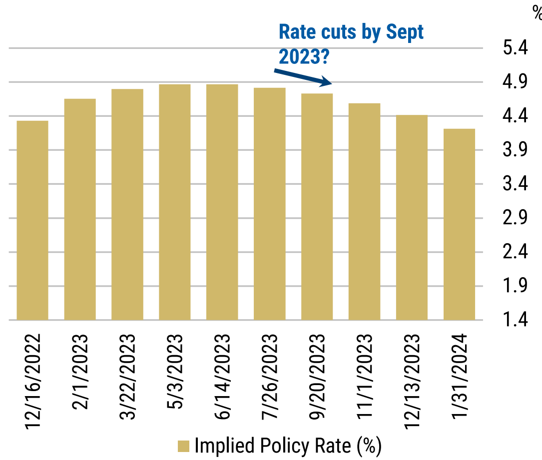
In this surprise scenario, the Fed delays cutting rates until 2024, even when recession begins in 2023. The Fed's concerns about inflation stickiness trump concerns about slowing growth and weakening labor markets, and the Fed waits for evidence of a sustained inflation decline. Inflation, being a lagging indicator, declines much later than growth and payrolls do, and the Fed cuts rates a few quarters after the recession begins. 10y yields do not decline much in a recession in 2023, and the 2s10s yield curve stays inverted through 2023 – and flatter than expected.

Markets and the economy are conditioned to seeing the Fed ease at the first signs of economic distress, or with tightening financial conditions. And even with the highest, and possibly stickiest, inflation in decades, markets think inflation will cool off next year, and the Fed will be cutting rates beginning in 2H23 (see Exhibit 14), delivering about 7 cuts by the end of 2024.

The Fed has already hinted at this possibility with the latest summary of economic projections at the December FOMC meeting. With the median Fed participant projecting real GDP growth at 0.5% in 2022 and 2023, the Fed plans to maintain a terminal rate of 5.125% through the end of 2023, with core PCE inflation expected to be 3.5% by the end of 2023 in the Fed's projections.

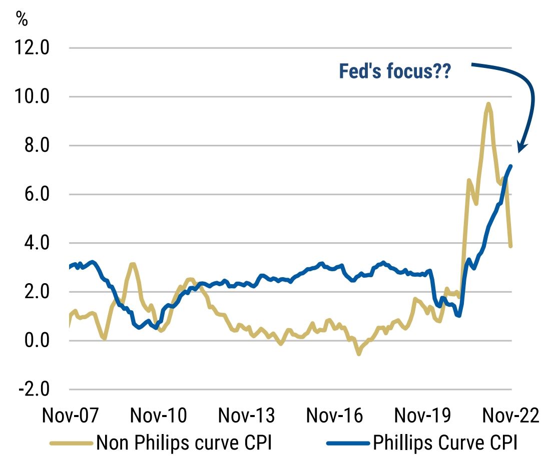
This disconnect – where markets are heavily priced for a recession scenario, and "Fed put" protects against it – is due to the completely different views on recent inflation prints between the markets and the Fed. As we noted in our December FOMC reaction, the Fed is more focused on service sector inflation, which largely makes up Phillips curve sensitive inflation. Meanwhile, markets are looking at overall inflation (see Exhibit 15), which has been coming down rapidly, driven by goods deflation as well as a healthcare insurance reset.

Exhibit 14: Market pricing of the Fed rate path over the coming year



Source: Bloomberg, Morgan Stanley Research

Exhibit 15: Decomposition of inflation into Phillips curve vs. non-Phillips curve inflation over the coming months

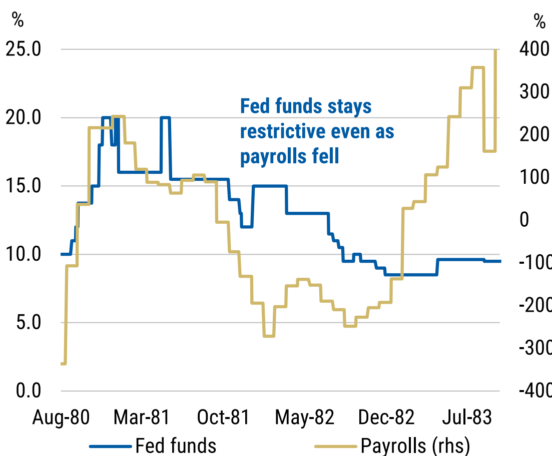


Source: Bloomberg, Morgan Stanley Research

It would not be unprecedented for the Fed to not cut rates in a recession (NBER recession dates : July 81 - November 82). Recall that back in late 1981 to mid-1982, the Fed under Chair Paul Volcker did not cut rates even as real GDP prints were negative and payrolls were clearly declining. In fact, payrolls started falling sharply in September 1981, but the Fed did not start cutting rates meaningfully until July 1982 (see Exhibit 16), a clear departure from the previous quarters, where the Fed had been much more reactive to payrolls.

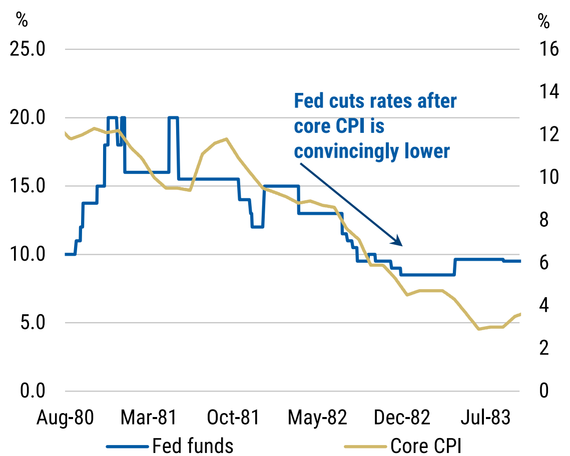
This was because Volcker decided to hold a restrictive stance until core CPI inflation itself started to cool meaningfully (see Exhibit 17) and, by definition, inflation readings lag the labor market and growth. Chair Powell has referred to this many times, most notably when he said in his Jackson Hole speech that "history cautions against loosening policy prematurely."

Exhibit 16: Fed funds vs. payrolls in the early 1980s



Source: Bloomberg, Morgan Stanley Research

Exhibit 17: Fed funds vs. core CPI in the early 1980s

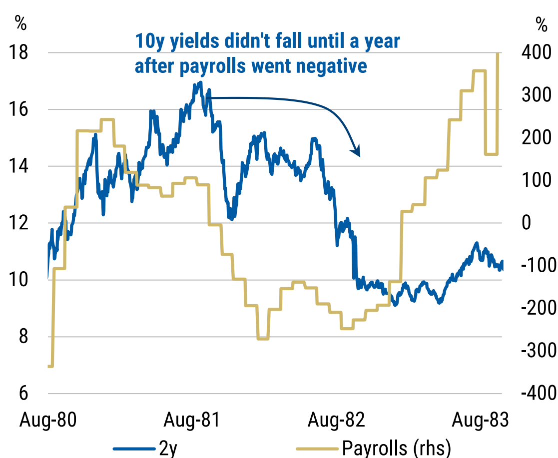


Source: Bloomberg, Morgan Stanley Research

With such a delay in cutting rates, the US rates market had a turbulent repricing. First, US rates markets, which were used to the Fed easing with payroll weakness, priced in easing. 1y and 10y yields fell sharply as payrolls fell, only to realize that the Fed wasn't cutting rates into a weakening economy, but was waiting for inflation to cool. Soon, the initial easing expected by the market faded and the 10y yield rose again (see Exhibit 18), only falling sustainably when the Fed cut rates in mid 1982.

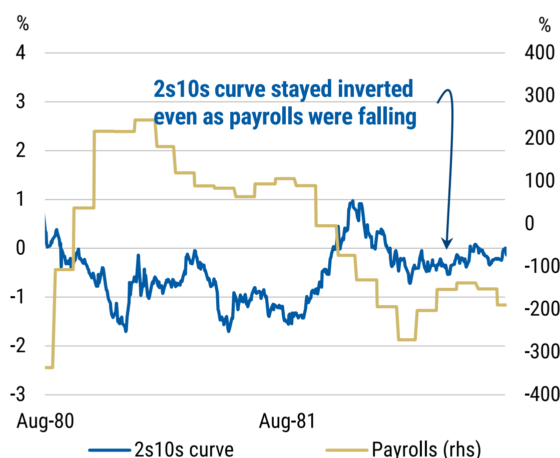
The 2s10s curve also steepened initially, but then flattened back when it became clear the Fed wasn't cutting rates anytime soon. We think, **given the sticky inflation perception the Fed has, the US rates market could be surprised by the Fed in 2023 – a similar dynamic as in 1982. Yields may not decline much and the 2s10s curve may stay inverted through 2023.**

Exhibit 18: 10y yields vs. payrolls in the early 1980s



Source: Bloomberg, Morgan Stanley Research

Exhibit 19: 2s10s curve vs. payrolls in the early 1980s



Source: Bloomberg, Morgan Stanley Research

Surprise #3: Dysfunctional UST market forces Fed to pause/end QT

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Challenged liquidity continues to pose a threat to QT

Most investors expect the Fed's second attempt at QT to come to an end due to reserve scarcity or policy rate cuts. However, a challenged liquidity environment makes market functioning another obstacle to QT that deserves attention from investors.

We see the two main drivers of lower liquidity (elevated volatility and intermediation constraints) lingering into next year, creating the possibility that the Fed would have to intervene and pause/end QT to restore market functioning in the event of a rush to liquidity.

Such an event should result in a rapid cheapening of UST yields relative to swaps, leading to lower swap spreads. Ideally, the best way to position for this is to short swap spreads (short UST, receiver swap), but knowing exactly when this will materialize, if at all, is very difficult. A more attractive proposition could be to go long swap spreads (long UST, payer swap), if evidence of liquidity strains materializes (rapid 10-20bp move in swap spreads), in the expectation that the Fed would intervene and restore market functioning.

We maintain our short 2-year SOFR swap spread.

The November NY Fed primary dealer survey shows that the market generally expects the Fed to stop reducing its balance sheet in 3Q24 (based on the median response). This is in broadly in line with our expectation that QT will end in mid-2024 as the Fed starts to see evidence of reserve scarcity in funding markets. Alternatively, some investors see policy rate cuts as another strong candidate to bring an end to QT (the market expects the first full 25bp cut by the November 2023 FOMC meeting).

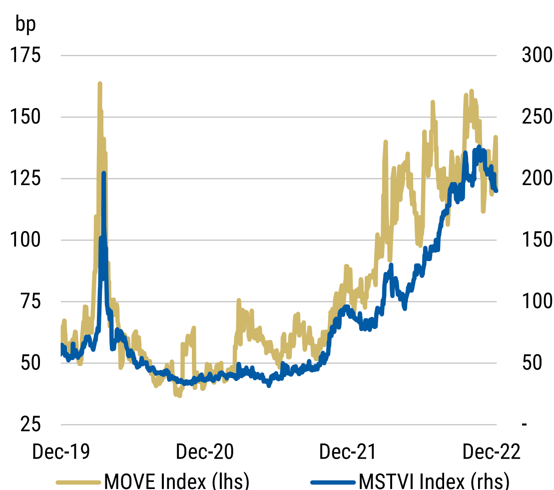
However, as we observe in QT: A Marathon with Multiple Obstacles, challenged liquidity continues to leave the UST market vulnerable, making market functioning another obstacle to QT that deserves attention from investors. Next year, **a rush-to-liquidity event (e.g., a surge in demand to sell US Treasuries for USD) could force the Fed's hand in having to act as the buyer of last resort, leading to a premature pause/end to QT.**

As we have highlighted recently (see UST Liquidity: Cloudy Skies), the US Treasury market has experienced deteriorated liquidity conditions this year given:

1. Elevated levels of both implied and realized volatility; and
2. Structural market issues such as limited primary dealer intermediation capacity.

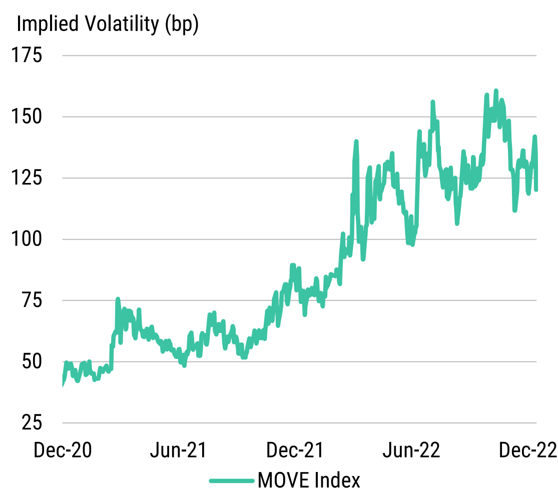
First, the rapid move higher in rates as the Fed hikes and unwinds its balance sheet to bring down inflation has led to one-sided markets (many sellers versus few buyers) and greater unwillingness from dealers to warehouse interest rate risk. Intuitively, periods of high implied volatility tend to result in worsening liquidity conditions (see Exhibit 20).

Exhibit 20: High volatility typically leads to worsening liquidity conditions



Source: Bloomberg, Morgan Stanley Research

Exhibit 21: Despite some improvement, volatility remains elevated into next year



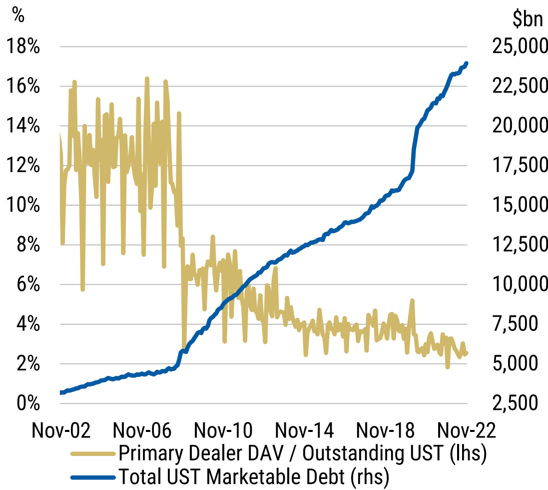
Source: Bloomberg, Morgan Stanley Research

Moving forward, a positive is that further clarity around the future path of hikes combined with a Fed that eventually pauses would help to reduce implied volatility next year and, consequently, help to improve liquidity. For now, as shown in Exhibit 21, implied volatility remains relatively elevated, albeit there has been a recent move lower, as a fair degree of uncertainty remains around the future path for inflation, growth, and interest rates.

This week's FOMC meeting (see FOMC Reaction: An Inconsistent Message) suggests that the path to lower implied volatility could be bumpy over the coming months, particularly as markets balance recent weak inflation data with an FOMC that needs "substantially more evidence to give confidence that inflation is on a sustained downward path."

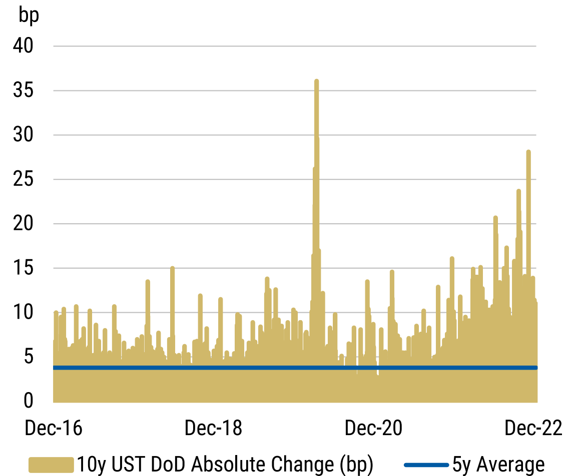
In particular, intermediation capacity continues to be limited (see Exhibit 22) as primary dealers have not kept up with the exponential growth of outstanding UST debt given regulatory capital constraints post-GFC (the most relevant being the supplementary leverage ratio). Although we expect to see further progress from regulators in 2023, final changes besides increased data transparency will likely take some time to implement.

Exhibit 22: Intermediation capacity has not been able to keep up with exponential growth of the UST market



Source: US Treasury, Federal Reserve, Morgan Stanley Research

Exhibit 23: Against the current backdrop, rates moves this year have been outsized relative to past years

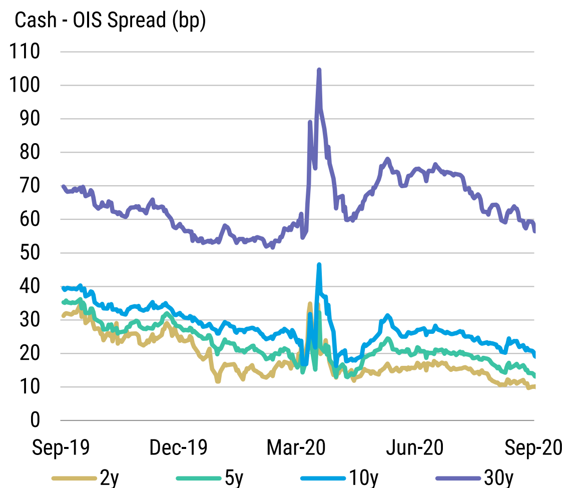


Source: SEC, Morgan Stanley Research

Consequently, it is no surprise that deteriorating UST liquidity due to the two factors just mentioned has led to elevated moves in rates relative to past years. As shown in Exhibit 23, the absolute day-over-day changes in the 10-year UST yield have, on average, been elevated this year relative to the 5-year average.

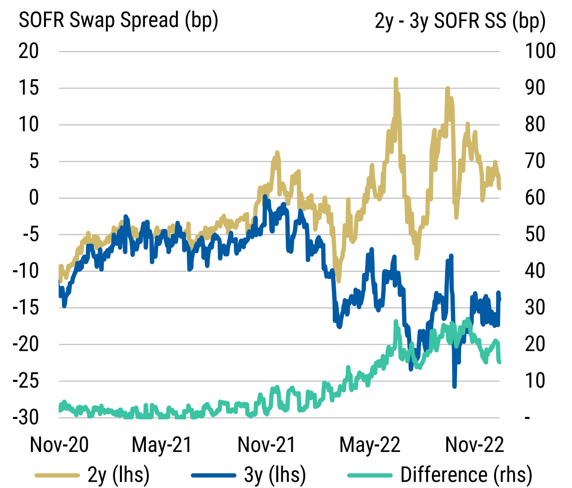
Given that both of the conditions that led to a deterioration in liquidity in 2022 could still linger into next year, the UST market remains vulnerable to an unexpected liquidity event.

Exhibit 24: In March 2020, a "dash for cash" led to a rapid cheapening of US Treasuries relative to swaps



Source: Bloomberg, Morgan Stanley Research

Exhibit 25: Desire to capture a higher terminal rate this year has helped 2-year swap spreads to outperform



Source: Bloomberg, Morgan Stanley Research

If an outsized demand to sell US Treasuries materializes next year, we expect US Treasuries to underperform swaps significantly (i.e., the yield on USTs increases at a faster pace relative to swaps). As shown in Exhibit 24, this occurred during March 2020's "dash for cash" and led the Fed to intervene to restore market stability. This presents opportunities for investors in swap spreads if such conditions repeat themselves.

Although not our base case, a sharp slowdown in growth and an unexpected increase in global political and financial risks could put US Treasury market functioning to the test. Ideally, the best way to position for this is to short swap spreads (short UST, receiver swap), but knowing exactly when this will materialize, if at all, is very difficult.

A more attractive proposition could be to go long swap spreads (long UST, payer swap), if evidence of liquidity strains materializes (rapid 10-20bp move in swap spreads), in expectation that the Fed would intervene and restore market functioning.

Going into next year, we **maintain our short 2-year SOFR swap spread.** 2022 saw a significant outperformance of 2y SOFR SS relative to 3y (see Exhibit 25). Into 2023, we see: 1) A smaller short base in the market, lowering short covering-driven demand; and 2) The desire to pay rates to capture a higher terminal being replaced with demand to receive rates, both helping 2-year SS to normalize (see What Happens When The Music Stops?).

As just discussed, the tail risk of a liquidity event next year could be a further tailwind for 2-year swap spreads to trend lower.

- **Trade idea: Maintain short 2y SOFR swap spread**

Surprise #4: 2H23 ECB rate cuts on sharply falling house prices

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Collapsing house prices implying late 2023 ECB rate cuts

Following the hawkish December ECB meeting, market expectations are for an ECB depo rising above 3.30% by the summer of 2023, before stabilising. While investors are concerned about inflation stickiness, housing prices started declining at a global level in the second half of 2022 following the rise in mortgage rates.

Considering the ECB is still tightening monetary policy and the lags of the transmission to the real economy, a further softening of house prices in Europe is the most likely scenario. A major decline i.e., above 15%, for global house prices, would be a surprise, in our view.

We looked at the 1993 housing bubble in Sweden, and the 2007-2011 US subprime crisis and the reaction of the Riksbank and the Federal Reserve. Both central banks cut rates by more than 500bp, with the 2s10s slope steepening by more than 150bp in the context of a 20% decline in house prices.

The risk of the ECB overshooting in tightening in 1Q23 is real, making a faster decline in house prices a scenario to be seriously considered. Under such a scenario, we assumed a cumulative 150bp of easing from the ECB in 2H23, from September. The Bund fair value would decline below 1.00% by late 2023.

If this "surprise" were to materialize, we would expect a major re-steepening of the EUR 10s30s curve given (i) the historical high level of 10y rates, which would become extremely strongly bid in such circumstances and (ii) the marked flatness of 10s30s in the current cycle.

Housing prices started declining sharply in the second half of 2022 in reaction to central banks hiking policy rates, which fed through to mortgage costs. As shown in Exhibit 26, housing prices peaked in late 2021 and 1H22 in Anglo-American countries as well as in Sweden, in Europe. Since then, prices have declined significantly, with a fall of 10.4% recorded in New Zealand, 7.4% in Australia, 4.8% in Canada and 2.2% in the US, while Sweden beat records with a close to 14% drop.

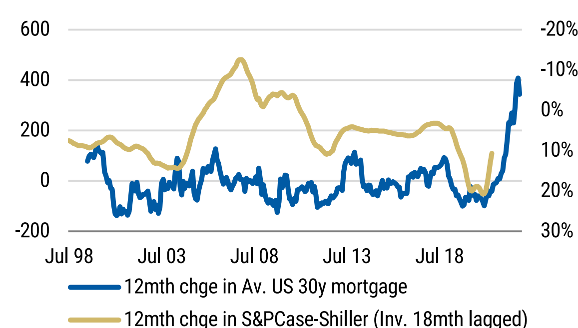
According to the Riksbank's forecast, Swedish housing prices have not bottomed yet, and the central bank now sees home prices falling by 19.9% by 2023 year end from the March 2022 peak. Sweden is particularly exposed to pronounced declines in real estate prices partly because households tend to have large loans relative to their incomes and most loans have rates that are fixed for a very short time span. In the US, as Exhibit 27 illustrates, the path of the average US 30y mortgage rate is good leading indicator of the 1y change in house prices. The latter peaked in June 2022 and should decline for a few quarters, if the past is any guide.

Exhibit 26: House prices started declining

	Sweden	New Zealand	Australia	Canada	USA
Peak of housing price index since Covid pandemic	303	905	1075	320	306
Date of peak	Mar-22	Dec-21	Apr-22	Jun-22	Jun-22
Δ since peak	**-13.9%**	**-10.4%**	**-7.4%**	**-4.8%**	**-2.2%**

Source: Morgan Stanley Research

Exhibit 27: US 30y mortgage rate continues to edge higher



Source: S&P Case-Schiller, Morgan Stanley Research

Exhibit 28: House price dynamics in the eurozone - quarterly change

	Germany	Netherlands	Ireland	France*	Italy*	Spain	EA Average
Sep-22	-1.3%	-1.0%	1.8%	#N/A	#N/A	1.2%	#N/A
Jun-22	1.0%	2.4%	2.1%	1.5%	1.2%	1.7%	1.7%
Mar-22	3.5%	3.9%	2.8%	1.4%	1.4%	2.2%	2.5%
Dec-21	3.4%	3.8%	3.6%	1.8%	0.9%	2.3%	2.6%
Sep-21	3.1%	5.6%	4.7%	1.8%	1.6%	1.6%	3.1%
Jun-21	3.6%	4.9%	3.0%	1.7%	0.6%	2.1%	2.7%
Mar-21	3.1%	4.7%	2.1%	1.3%	0.9%	0.2%	2.0%
Dec-20	2.7%	2.1%	2.1%	2.1%	1.0%	0.2%	1.7%
Sep-20	3.1%	2.2%	-0.5%	0.8%	-2.1%	0.7%	0.7%
Jun-20	1.7%	2.0%	-0.3%	1.2%	1.9%	-0.2%	1.1%
Mar-20	3.0%	2.0%	0.9%	1.6%	0.9%	0.8%	1.5%
Dec-19	2.6%	2.1%	-0.7%	1.2%	0.3%	0.4%	1.0%
Sep-19	2.8%	1.4%	0.1%	1.0%	0.1%	1.1%	1.1%
Jun-19	3.3%	1.4%	0.6%	0.9%	0.4%	0.8%	1.2%
Mar-19	1.3%	1.5%	0.2%	0.5%	-0.5%	1.2%	0.7%
Dec-18	2.3%	1.7%	0.4%	0.9%	0.4%	1.5%	1.2%
Sep-18	2.4%	2.1%	0.7%	0.8%	-0.5%	1.8%	1.2%

Source: Bloomberg, Morgan Stanley Research; note: * last data available is 2Q-22 for France and Spain

In the euro area, real estate prices haven't been as reactive to monetary policy, with prices still accelerating (though to a slower pace) in June 2022 in France and Italy (last data available) as well as in September in Spain and Ireland (see Exhibit 28). In contrast, in Germany and the Netherlands, the picture is more similar to that of Anglo-American countries given the real estate market is already slowing down (-1.3% QoQ in Germany and -1.0% in the Netherlands). In our view, these discrepancies within the euro area are linked to the adjustment of mortgage rates, with the latter being structurally faster in Germany and the Netherlands.

Considering the ECB is still tightening monetary policy and the lags of the transmission to the real economy, a further softening of house prices in Europe is the most likely scenario. A major decline i.e., above 15% for global house prices, would be a surprise. The real estate conjuncture has an impact on consumption and ultimately growth (e.g., Case, Quigley and Schiller, 2003). The Riksbank also noted in its November monetary policy report that "developments on the Swedish housing market comprise a risk for domestic demand in the coming years".

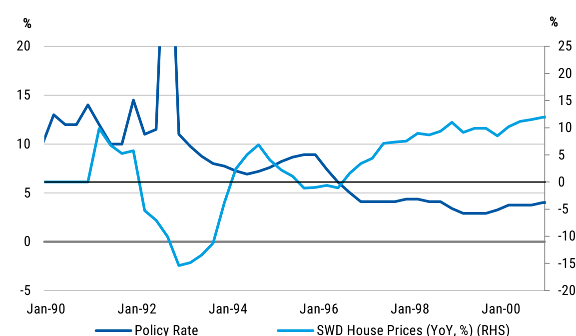
To assess the impact of such a surprise, we look at what happened historically on the monetary policy and rates front when real estate prices declined significantly. We decided to focus on the 1993 housing bubble in Sweden, and the 2007-2011 US subprime crisis. Exhibit 29 shows the change in the Swedish policy rate, SEK swap rates and as well SEK 2s10s from December 1991 to September 1993, which are the dates of the peak and trough of housing prices during the 1993 crisis. In a matter of two years, house prices declined by more than 20% and the Riksbank cut rates by 650bp. Unsuprisingly, this led to a 104bp bull-steepening of the SEK swap curve.

Exhibit 29: Sweden - 1993 housing bubble stats

	Policy Rate	2y SEK swap	10y SEK swap	2s10s	House Prices
Sweden 1993 Housing Bubble					
Dec-91	14.50	11.75	11.20	-55	217
Sep-93	8.00	7.27	8.31	104	173
Change	**-650**	**-448**	**-289**	**159**	**-20.6%**
Current					
Current	2.5	3.15	2.63	-52.7	261
Mar-22 (peak in house prices)	0.25	2.52	2.78	26.35	303
Change	**225**	**63**	**-16**	**-79**	**-14.0%**

Source: Morgan Stanley Research

Exhibit 30: Riksbank cut rates after house prices declined sharply



Source: Morgan Stanley Research

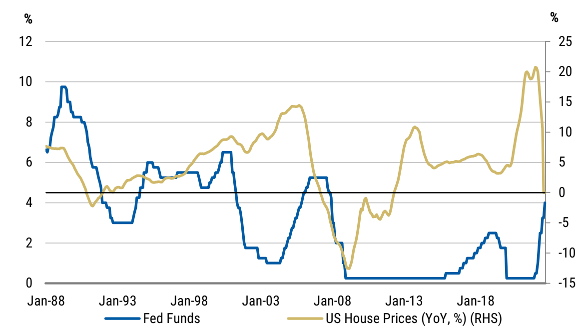
Exhibit 31 and Exhibit 32 highlights a similar picture in the US during the subprime crisis as the Fed cut rates by 500bp and 2s10s bull-steepened by 173bp.

Exhibit 31: USA - Subprime crisis stats

	Fed Funds	2y UST	10y UST	2s10s	House Prices
Subprime crisis					
Feb-07	5.25	4.65	4.57	-8	180.25
Dec-11	0.25	0.27	1.92	165	136.68
Change	**-500**	**-438**	**-265**	**173**	**-24.2%**
Current					
Current	4.5	4.238	3.444	-79.4	299
Jun-22 (peak in house prices)	1.75	2.96	3.02	5.90	306
Change	**275**	**128**	**43**	**-85**	**-2.2%**

Source: Morgan Stanley Research

Exhibit 32: Fed Funds and US housing prices

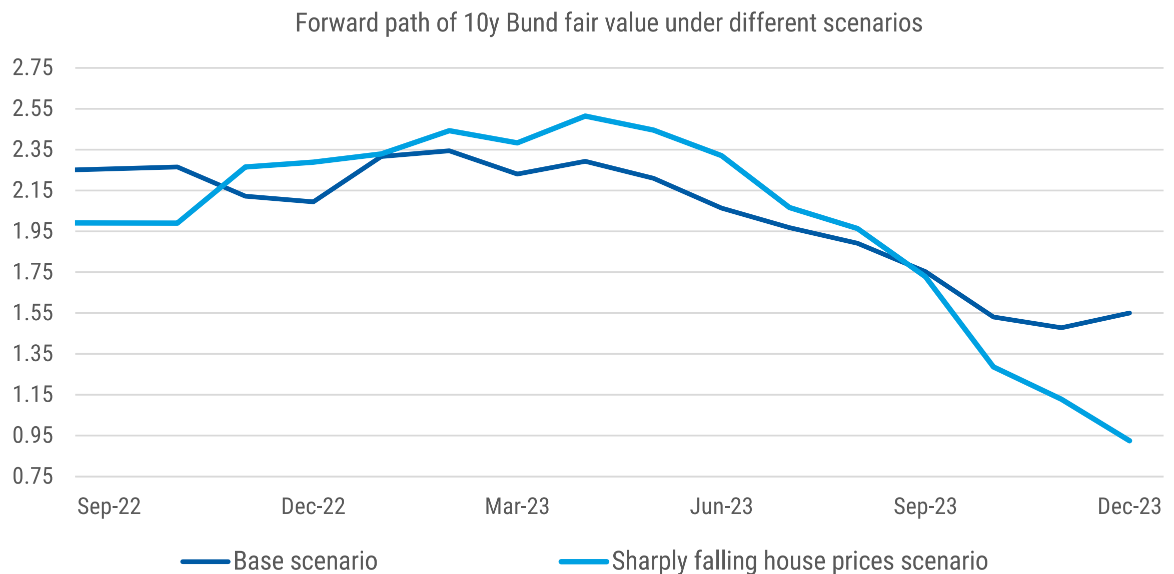


Source: S&P Case-Schiller, Morgan Stanley Research

Though these two past crises took place in environments where the banking system was not as robust and healthy as today – accentuating the impact on growth – a weakening of house prices in the euro area could dampen consumption and increase the risk of the ECB cutting rates faster than markets expect. Moreover, the risk of the ECB overshooting in tightening in 1Q23 is real, making a faster decline in house prices a scenario to be seriously considered.

Under such a scenario, we assumed a cumulative 150bp easing from the ECB in September, October and December 2023. Exhibit 14 shows the Bund fair value derived from our long-term model under our economists' 2023 central scenario of ECB depo rates peaking at 3.25% in May and stable for the rest of the year, and an alternative scenario of a sharp fall in global house prices, leading to ECB rate cuts from September 2023. Under the central scenario, the Bund fair value would stabilise around 2.20/2.25% in 1H23 before falling to 1.50% in 2H23. Under the alternative scenario of the ECB cutting back by 150bp in three meetings in 2H23, the fair value would decline below 1.00%.

Exhibit 33: Long term Bund fair value path under the new ECB central scenario and the scenario of sharply falling house prices



Source: Morgan Stanley Research Estimates

Moving to the curve, we analyzed the behavior of previous easing cycles, where the ECB was forced to cut following an economic downturn. We analyzed the 1999, 2001 and 2008 easing cycles.The 1999 and the 2008 were particularly aggressive, with ECB cutting depo rate by 125bp and 250bp, respectively, during a 3-month and 5-month time span .

Exhibit 34: Curve behavior in last ECB easing cycles

Start Year	Length of easing (in months)	Δ ECB Depo (bp)	2s10s levels	Δ 2s10s (bp)	10s30s levels	Δ 10s30s (bp)
1999	3	-125	108	22	74	1
2001	25	-275	65	100	46	39
2008	5	-250	77	83	-5	33
Current levels			-33		-72	

Source: Bloomberg, Morgan Stanley Research

From Exhibit 34 we can see that unsurprisingly the curve tended to steepen consistently during previous instances, and as such, on the event of ECB being forced to cut rates due to sharply falling house prices we would foreseen a similar reaction to those shown above.

Exhibit 35: Z scores on spot and forward Eur curve

5y Z-scores: EUR Curve												
	1s2s	2s3s	2s5s	2s10s	5s7s	5s10s	5s30s	10s15s	10s20s	10s30s	20s30s	30s50s
Spot	-0.09	-2.39	-2.50	-2.74	-2.57	-2.69	-3.19	-3.27	-3.28	-3.17	-2.95	-3.26
1m	-0.78	-2.75	-2.75	-2.86	-2.59	-2.71	-3.18	-3.29	-3.27	-3.17	-2.94	-3.30
3m	-2.04	-3.11	-2.92	-2.93	-2.65	-2.75	-3.16	-3.28	-3.23	-3.13	-2.92	-3.28
6m	-3.23	-3.08	-2.81	-2.82	-2.60	-2.70	-3.09	-3.23	-3.17	-3.07	-2.88	-3.25
1y	-3.46	-2.46	-2.35	-2.52	-2.52	-2.64	-3.02	-3.18	-3.08	-3.01	-2.87	-3.16
2y	-1.53	-1.56	-1.96	-2.33	-2.48	-2.67	-2.96	-3.12	-2.98	-2.90	-2.75	-3.24
3y	-1.57	-2.15	-2.45	-2.74	-2.71	-2.99	-2.98	-3.04	-2.91	-2.86	-2.73	-3.26
5y	-2.63	-2.61	-2.71	-3.14	-2.93	-3.21	-2.90	-2.77	-2.73	-2.74	-2.73	-3.24
7y	-2.29	-3.20	-3.19	-3.11	-2.97	-2.75	-2.63	-2.59	-2.64	-2.72	-3.20	-1.69
10y	-0.68	-1.86	-2.62	-2.61	-2.48	-2.56	-2.59	-2.46	-2.45	-2.59	-2.78	-2.84
15y	2.20	-0.57	-2.18	-2.33	-2.11	-2.27	-2.71	-2.10	-2.45	-2.87	-2.49	-2.93
20y	-0.76	-1.28	-1.66	-1.62	-0.44	-1.15	-2.84	-1.91	-2.04	-2.73	-2.77	-0.61
25y	-0.43	-2.49	-1.63	-1.77	-0.58	-0.51	-1.53	-1.38	-1.88	-1.50	-0.50	0.06
30y	-0.97	-0.89	1.63	-1.16	-2.44	-2.10	-1.28	-1.47	-1.27	-0.51	0.46	0.25

Source: Bloomberg, Morgan Stanley Research

In the current context, if this "surprise" were to materialize, we would expect an even higher re-steepening of the EUR 10s30s curve given **(i)** the historical high level of 10y rates, which would become extremely strongly bid in such circumstances and **(ii)** the marked flatness of 10s30s in the current cycle (see Exhibit 35).

Surprise #5: Renewed gilt underperformance due to net supply

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Probably the most consensus theme in the UK is the high net issuance in FY 2023-24, owing to a combination of a high CGNCR along with redemptions. But historically the DMO has been able to modify the profile of upcoming issuance and mitigate any curve or cross-market distortions. So we do not think that investors are really positioned for a renewed gilt underperformance, even though it is a widely discussed topic.

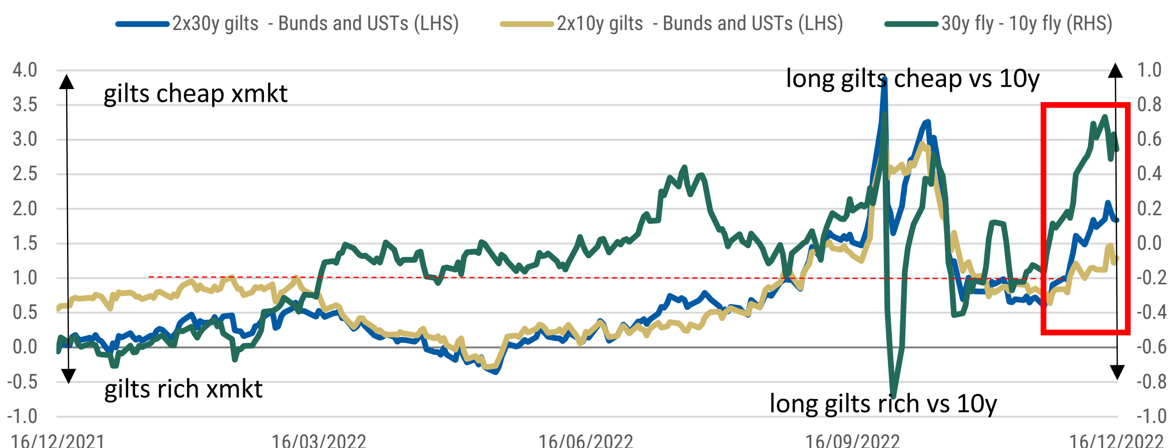
The market implies that the DMO, in collaboration with HM Treasury, takes a proactive approach and delivers a very cautious FY2023-24 remit that shifts issuance towards more T.Bills and short gilts. But if this does not happen and we continue in the spirit of fiscal largesse, a renewed gilt sell-off harking back to September 2022 is a possible surprise.

Steep rise in net issuance

Historically, net issuance has been a key driver of cross-market and asset swap valuations. Exhibit 36 shows the recent price action with the red box covering the period of the partial unwind in the APF financial stability portfolio; still about £8m/bp and £2.2m/bp in nominal and linker DV01 needs to be unwound. While the balance sheet reduction operations have been implemented smoothly, they have led to a cross-market underperformance, especially in long gilts. So gilt sales can happen in an orderly manner, but still have a gradual impact on valuations.

Based on recent publications from the OBR and the UK DMO, we expect issuance in the coming years to be **at minimum** in line with the numbers shown in Exhibit 37. These numbers are high relative to the 2010-2019 period but still somewhat lower than during the FY 2020-21. But the FY 2020-21 was an exceptionally easy year for gilt issuance because 1) the macro backdrop and especially low inflation supported demand for fixed income assets, 2) QE was in place, 3) the BoE could entertain the notion of negative rates.

Exhibit 36: It's mostly long gilts that have so far cheapened in cross-market

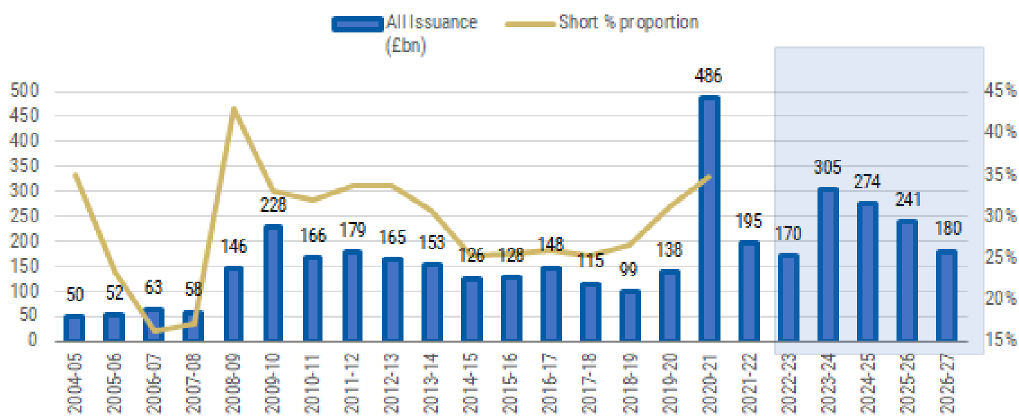


Source: Morgan Stanley Research, Bloomberg

In our view, **nothing from the above list** is likely to be delivered again to a similar extent as experienced during the Covid crisis and the reason is simple: the combination of fiscal largesse and fiscal laxity are partly responsible for the unusual inflation levels that the UK and other geographies are currently facing.

So moving back to upcoming issuance, we believe that the UK DMO will have to structure supply in the coming years with the proportion of short gilts at least at 35%, and possibly higher. Moreover, ultra-long issuance both in nominals and especially linkers should become rare due to the DV01 impact.

Exhibit 37: Projections of upcoming gilt issuance



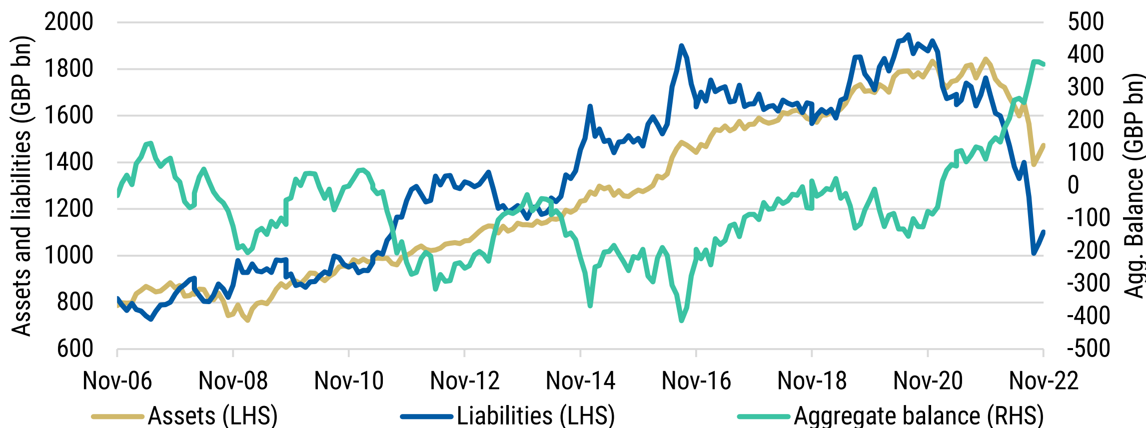
Source: Morgan Stanley Research, Bloomberg

Who will buy all these gilts?

UK pension schemes have historically been a pillar of stability for the UK, absorbing long gilt issuance and helping with government financing. Stronger funding levels (see Exhibit 38) largely due to the drop in liabilities should encourage de-risking. But gradually, higher hedging ratios and more mature phases of de-risking mean that the appetite for additional gilt buying is likely to reduce.

Based on PPF's Purple Book, DB pension schemes should have around £295bn of assets in equity. De-risking means that over the course of the coming years all those equities are likely to be sold, with **fixed income assets** being bought. But the coming four financial years will deliver about £1trn of fresh gilt issuance. If we assume 20% of that being in longs and 10% in linkers, then the pension schemes will get enough gilts to finish off all their de-risking within the next four years. And then there would be no further need for additional gilt buying.

Exhibit 38: Funding status of DB schemes at ideal levels, based on S179 basis



Source: Morgan Stanley Research, Bloomberg

This story becomes even more complicated though once we consider the mechanics of buyouts: there will be an ongoing need for fixed income assets but that does not necessarily have to be all in gilts. Other than typical gilt issuance, we will receive gilt "supply" through: 1) the unwind of the BoE's APF portfolio, and 2) insurers selling conventional gilts and linkers in favour of RPI swaps and credit.

Bottom line: Unless there is a radical change in issuance dynamics, we can see risks of a renewed gilt underperformance emerging, surprising markets. In this scenario, typical buyers of gilts may struggle to absorb upcoming supply, even in the absence of liquidity pressures.

Surprise #6: Nothing from the BoJ

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No policy changes in 2023 itself would become a surprise

Investors, irrespective of whether they are domestic or overseas, now anticipate some policy tweaking under the new BoJ Governor, with the market already pricing in such probability to a great extent. The main reasons behind this expectation seem to be **(1)** Growing evidence of higher prices on a broad basis, and **(2)** a significant deterioration in bond market functioning.

That said, we are also mindful of the possibility that the BoJ might find itself unable to make "normalization"-oriented policy adjustments when faced with a slowdown in the global economy, a deceleration in inflation, and the prospect of overseas central banks shifting into easing mode. Should this happen, we would expect the magnitude of disappointment from market participants to become noticeable.

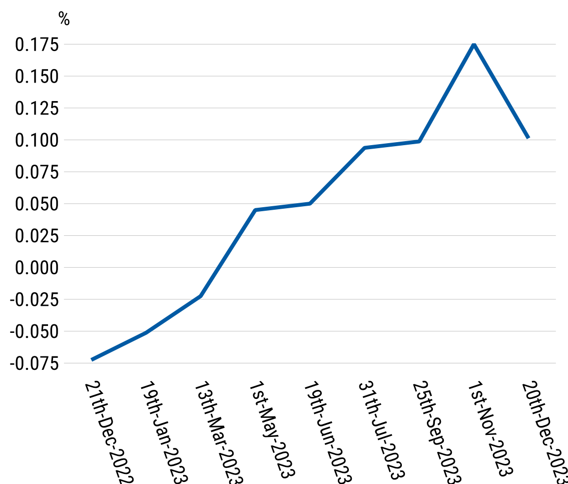
Such a scenario should be conducive to a significant bull-flattening of the 10y+ portion of the JGB yield curve, along with a downward shift in the OIS curve as a whole. JPY rates might then return to the ranges that market participants have grown accustomed to under YCC, if global recession concerns continue to manifest.

Speculation that the BoJ will make some sort of policy adjustment towards "normalization" next year under its new leadership team continues to bubble away among overseas investors, and even appears to have become the consensus among domestic players.

Support for this view has come from recent comments by BoJ policy board member Naoki Tamura in which he alluded to a future "review" or "assessment" of the current monetary policy framework, an indication by Deputy Chief Cabinet Secretary Seiji Kihara that the January 2013 joint statement (policy accord) between the government and the central bank might be rewritten after Haruhiko Kuroda is succeeded by a new Governor next April, and (perhaps most influentially) a December 14 Bloomberg article titled "BoJ Is Said to See Possibility of Conducting a Review Next Year".

Current market pricing of OIS rates starting from the upcoming (December 19–20) BoJ meeting implies a 100% probability of the BoJ hiking its short-end policy rate to +10bp by Sep-2023 (see Exhibit 39), with the 10y OIS yield having also corrected to its highest level since 2015 (prior to the launch of the current negative interest rate policy) (see Exhibit 40).

Exhibit 39: Current BoJ market pricing



Source: Morgan Stanley Research, Bloomberg

Exhibit 40: 10y TONA OIS rate

Source: Morgan Stanley Research, Bloomberg

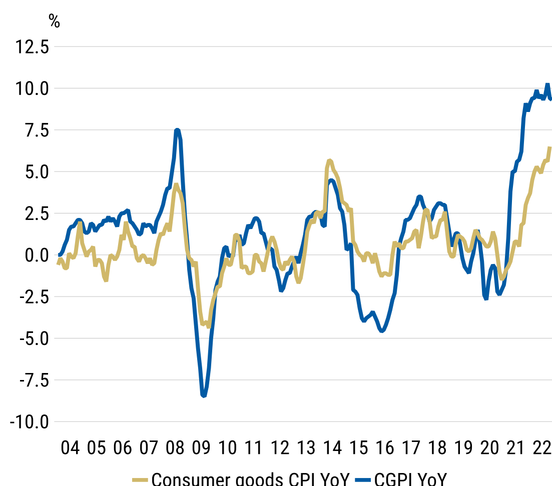
So why do markets envisage a change in the BoJ's policy response function under new leadership? Contributing factors would appear to include **(1)** growing evidence of businesses passing upstream cost increases through to consumers in the form of higher prices (see Exhibit 41) and **(2)** a significant deterioration in bond market functioning as a consequence of the 10y JGB yield remaining capped at +25bp under the "yield curve control" (YCC) framework.

With regard to (1), the BoJ as of yet continues to view recent cost-push inflation as a "transitory" phenomenon. As we discussed in "Long long-end", the central bank's position is that an acceleration in so-called "sticky inflation" (for example, in the services sector) will be necessary in order for the +2% "price stability goal" to be achieved in a sufficiently "stable" and "sustainable" fashion.

However, with the Kishida administration now making the rising cost of living one of its top priorities, we are starting to hear greater speculation that the Prime Minister might appoint a more "hawkish" replacement for Kuroda and/or that accelerating headline inflation might necessitate a significant change in the BoJ's policy response function.

With regard to (2), there are also expectations that the new Governor might start paying greater attention to adverse side effects of protracted monetary easing, with the BoJ's latest Bond Market Survey showing the "degree of bond market functioning" DI ("high" minus "low") at an all-time low (see Exhibit 42).

Exhibit 41: Japan Goods CPI vs CGPI YoY



Source: Ministry of International Affairs and communications, Morgan Stanley Research

Exhibit 42: BoJ **Bond Market** functioning DI

Source: BoJ, Morgan Stanley Research

While our economists do not expect the BoJ to react to cost-push inflation pressures, they do envisage some policy tweaks in response to recent inflation if next spring's annual pay negotiations between big businesses and their labor unions result in significantly stronger-than-usual nominal wage growth.

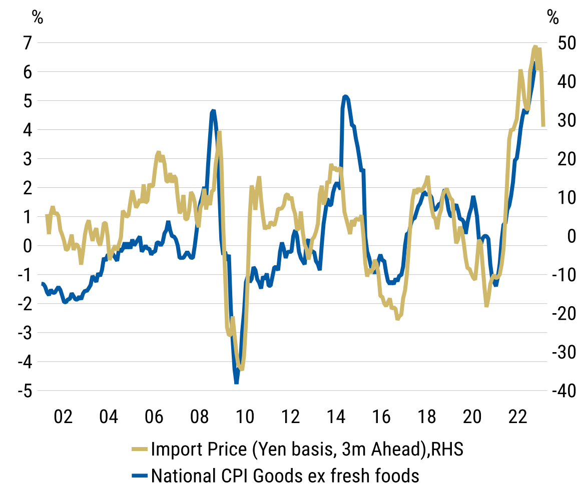
A recent Bloomberg survey of economists also indicated that around 80% expect the BoJ to conduct some sort of "review" or "assessment" of its current monetary policy framework (including the way in which the +2% "price stability goal" should be characterized) by the end of next year.

But we are also mindful of the possibility that the BoJ might find itself unable to make "normalization"-oriented policy adjustments when faced with a slowdown in the global economy, a deceleration in inflation, and the prospect of overseas central banks shifting into easing mode.

Headline inflation has indeed continued to quicken of late, but upward pressure on import costs (the main driver to date) already appears to be easing, with JPY-denominated import prices rising at a significantly slower pace since September due to both a partial reversal of previous JPY depreciation and a decline in international raw materials prices.

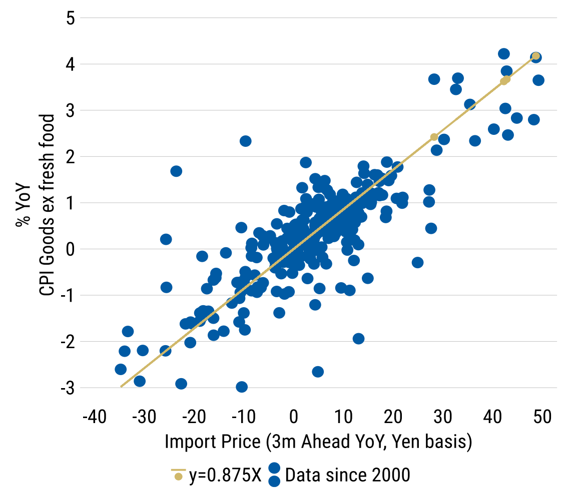
Import prices have historically tended to feed through to CPI goods inflation with a roughly three-month lag (see Exhibit 43, Exhibit 44). We see a high likelihood of import prices continuing to decline given that oil prices now look to have plateaued and USD/JPY is expected to face downward pressure as an end to Fed rate hikes precipitates a slide in the greenback.

Exhibit 43: Japan Import price (JPY basis) vs CPI goods price (ex fresh food)



Source: Ministry of International Affairs and communications, Morgan Stanley Research

Exhibit 44: The relationship between Japan Import price (JPY basis) and CPI goods price (ex fresh food)

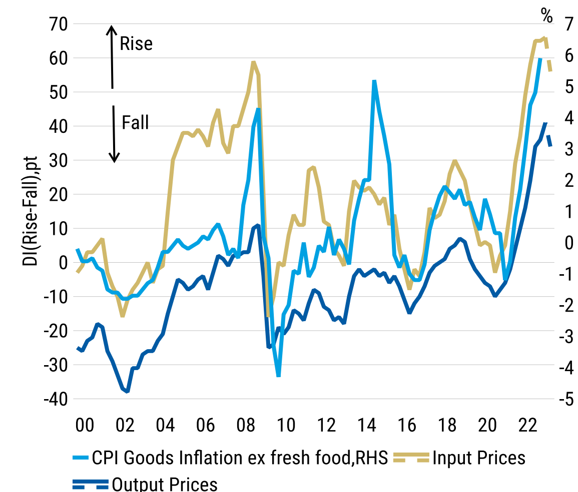


Source: Ministry of International Affairs and communications, Morgan Stanley Research

Moreover, while electric power companies have indeed applied for an increase in their charges from April, the impact of soaring energy and gas costs is meanwhile set to be alleviated by government price subsidies included under the "package of economic countermeasures" that was announced by the Kishida administration back in late October.

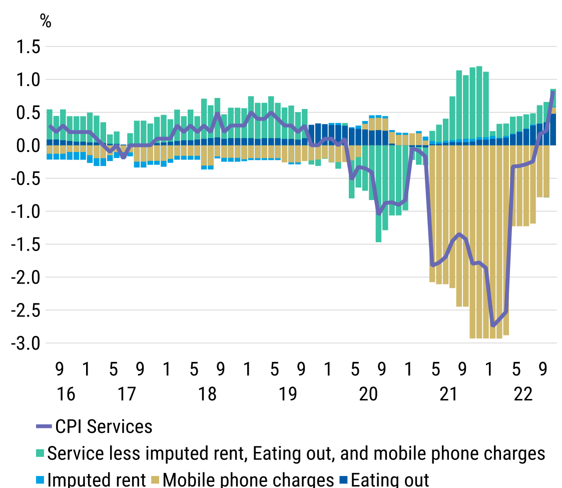
We thus see potential for goods prices—which comprise around half of Japan's CPI ex fresh food—to start facing noticeable downward pressure from early in the new year, with the December Tankan survey turning out to have been a peak for both the "change in input prices" and "change in output prices" DIs ("rise" minus "fall") (see Exhibit 45).

Exhibit 45: BoJ Tankan: Prices DI (large manufacturing companies, input and output prices) vs CPI goods inflation



Source: BoJ, Morgan Stanley Research

Exhibit 46: Japan service CPI breakdown

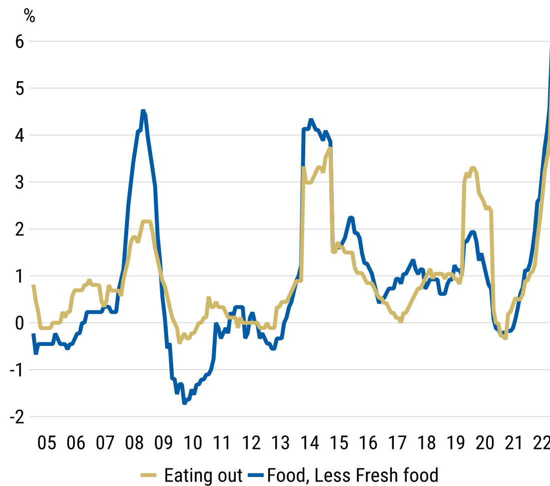


Source: Ministry of International Affairs and communications, Morgan Stanley Research

What about services prices? As discussed in "Long long-end", services prices have still only been rising at around 1% YoY of late, well below the BoJ's +2% target level for the overall inflation rate (see Exhibit 46).

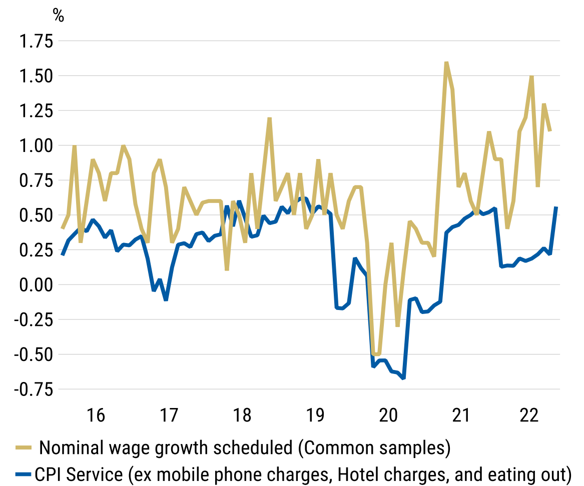
Moreover, with "eating out" having been the main driver of recent services inflation, it would appear that higher food prices have ultimately played much more of a role than either labor market tightness or an increase in personnel costs (see Exhibit 47). There are thus good grounds for concluding that Japan has yet to experience significant demand-driven inflation backed by stronger wage growth (see Exhibit 48).

Exhibit 47: Eating out vs food inflation



Source: Ministry of International Affairs and communications, Morgan Stanley Research

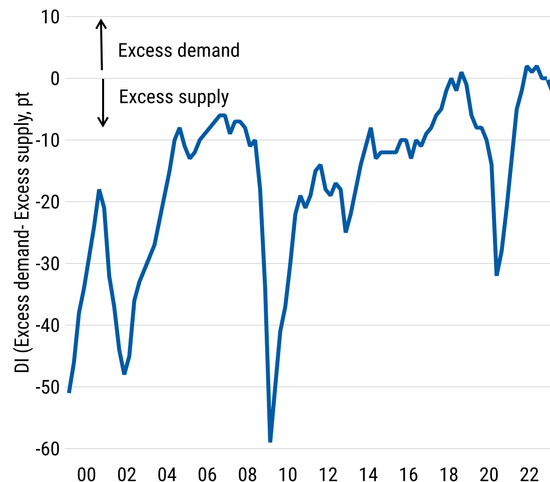
Exhibit 48: Scheduled income growth vs Service inflation (ex mobile phone charges, Hotel charges and eating out)



Source: Ministry of International Affairs and communications, Ministry of Health, Labour, and Welfare,Morgan Stanley Research

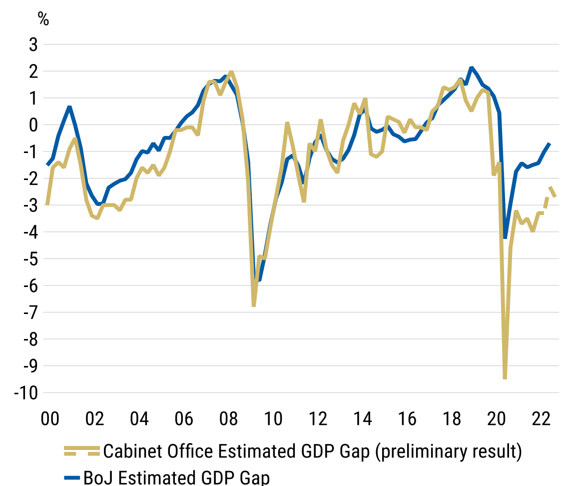
The December Tankan survey results suggest that supply/demand tightness might already be peaked out when it comes to both manufactured goods and services (see Exhibit 49). Cabinet Office estimates (which are admitted based on a different methodology to that used by the BoJ) actually point to a deterioration in the economy's output gap (driven by weaker demand) during 3Q 2022 (see Exhibit 50).

Exhibit 49: BoJ Tankan: Domestic supply and demand conditions for products and service (large manufacturing companies)



Source: BoJ, Morgan Stanley Research

Exhibit 50: Output gap estimated by BoJ and Cabinet office



Source: BoJ, cabinet office, Morgan Stanley Research

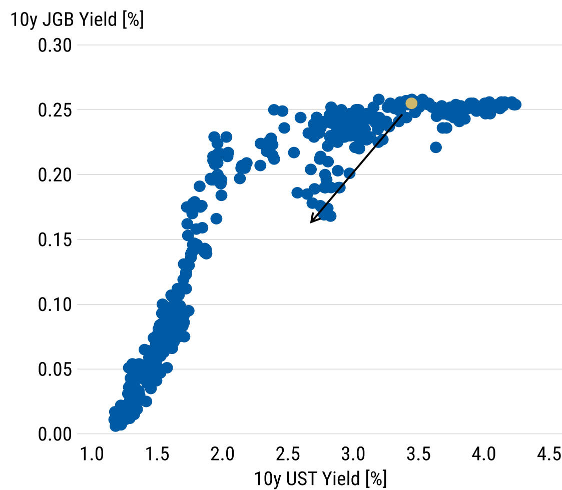
The BoJ meanwhile continues to envisage a gradual recovery in the domestic economy with support from an easing of both pandemic and supply constraints, but as has been pointed out by policy board member Toyoaki Nakamura, it is possible that even quite significant wage hikes next spring (should they eventuate) will not end up feeding through to higher consumption if economic activity and inflation slow on a global scale, and Japan also starts to face weaker demand and goods-driven disinflation.

Under such a scenario, the BoJ may continue to make stimulating the real economy its top priority and, as such, refrain from making any policy adjustments in the "normalization" direction (albeit not our economists' base case).

What about bond market functioning? With the BoJ's fixed-rate operations (with unlimited offer amounts)—used to enforce its YCC ceiling—having made 10y JGBs look very rich to overseas bonds, we have understandably seen the 10y JGB yield hold steady of late even as overseas interest rates have fallen.

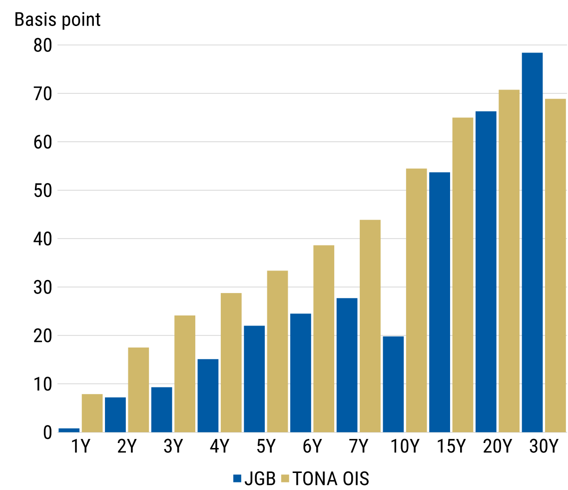
However, the level of the 10y JGB yield consistent with overseas interest rates might very well drop below +0.25% if the latter continue to fall due to a combination of cooling inflation and growing recession concerns (see Exhibit 51), in which case market functioning might improve of its own accord as the 10y JGB yield regains at least some of its previous sensitivity to overseas interest rate movements.

Exhibit 51: 10y UST yield vs 10y JGB yields



Source: Morgan Stanley Research, Bloomberg

Exhibit 52: YTD yield changes in JGB and TONA OIS curve



Source: Morgan Stanley Research, Bloomberg

As discussed above, current pricing in the JPY rates market implies an expectation that the BoJ will not only adjust its YCC framework but also hike its short-end policy rate by at least 20bp. We therefore see potential for a significant unwinding of the so-called "BoJ trade" if market participants (for whatever reason) manage to convince themselves that policy settings are instead likely to be left unchanged.

Such a scenario should be conducive to a significant bull-flattening of the 10y+ portion of the JGB yield curve along with a downward shift in the OIS curve as a whole (which is not directly impacted by the BoJ's JGB purchases and has thus risen amid speculation about possible monetary policy adjustments) (see Exhibit 52). JPY rates might then return to the ranges that market participants had grown accustomed to under YCC if global recession concerns continue to manifest.

Even under this scenario of the BoJ opting to stick with the status quo, we would still see scope for strong performance from our recommended JGB 20s40s flattener and JGB 7s30s ASW box flattener trades.

- **Trade Idea Maintain JGB 20s40s flattener**
- **Trade Idea Maintain JGB 7s30s ASW box flattener**

Surprise #7: The bull case for GBP

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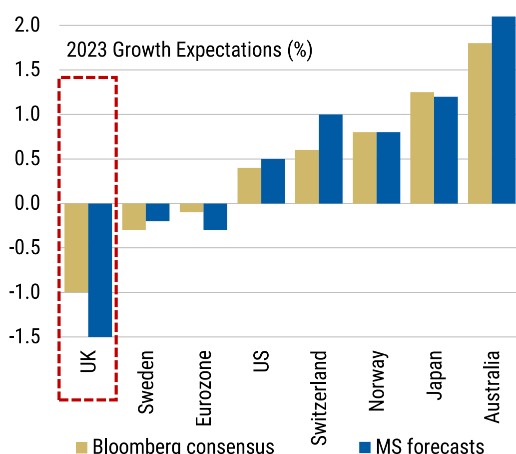
A bearish outlook for the UK has pretty much been a consensus view for the past few months, and remains so even as GBP staged an impressive rally against the USD in recent weeks. We think this GBP rally was driven by a combination of positioning adjustment and a broad weakening of the USD, rather than a change in the fundamental view.

Given the consensus (and our) view on a bearish UK outlook (Exhibit 53), we think a bullish scenario for the UK (and its currency) could come as a surprise to many in 2023. Below, we discuss three potential drivers which could surprise markets and make us more constructive on GBP.

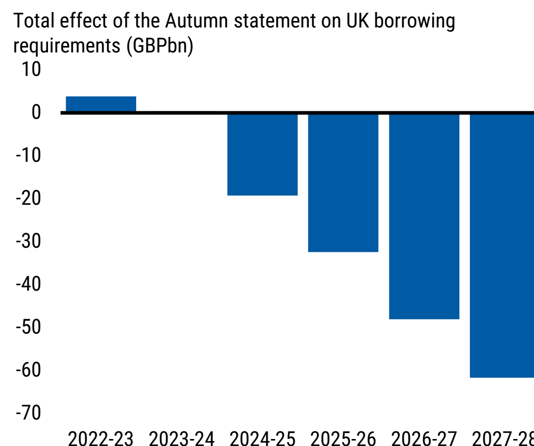
UK growth to be a key laggard in 2023: Our economists expect UK growth to be the worst among G10 (and even EM) as high energy prices, the impact of policy tightening and weak potential growth (of around 1% y/y) weigh on growth and cap the UK's recovery. Moreover, with the UK government's increased focus on fiscal consolidation and the need to maintain this for years to come (Exhibit 54), fiscal policy is unlikely to come to the rescue either.

Exhibit 53: UK growth expectations are the lowest among G10...



Source: Bloomberg, Morgan Stanley Research forecasts

Exhibit 54: ... with more fiscal tightening to come



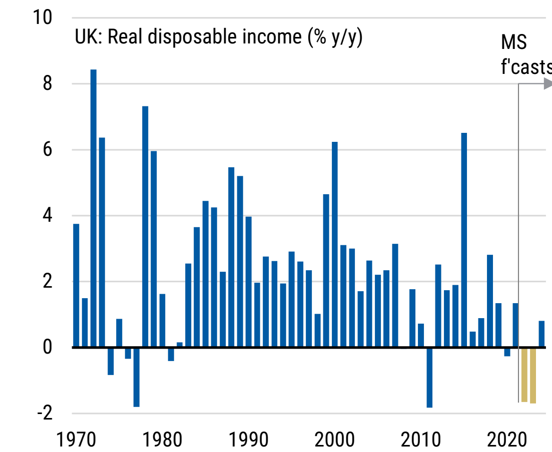
Source: OBR, Morgan Stanley Research

On that front, a change in the structurally higher inflation narrative or in the pessimistic growth outlook could make us more constructive on the outlook for the UK and its currency. We think this could come through three potential channels:

1. A material fall in energy prices would be a key positive driver, especially as elevated UK inflation is largely an energy story. High inflation (and one that's expected to stay elevated for some time) means a considerable hit to real disposable income (Exhibit 55) and private consumption, a key reason for our pessimistic growth outlook.

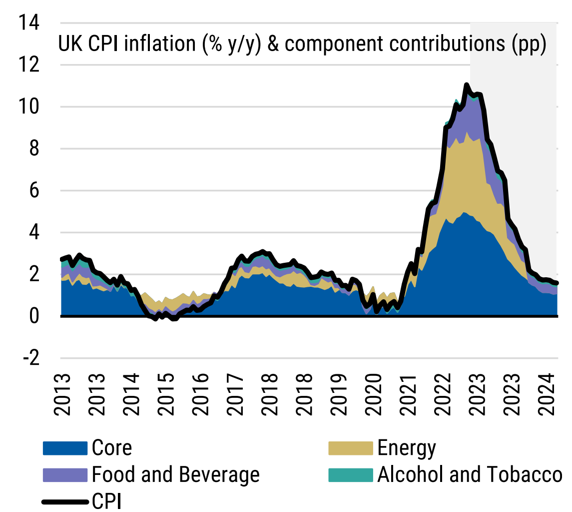
A fall in energy prices could bring down inflation a lot quicker (than monetary policy) (Exhibit 56), not only helping with the cost of living crisis and boosting the growth outlook, but also alleviating government finances by reducing the cost of the energy price guarantee scheme, which is set to last until April 2024.

Exhibit 55: High inflation means a considerable hit on real disposable income



Source: ONS, Morgan Stanley Research forecasts

Exhibit 56: A sharp fall in energy prices could bring inflation down much faster

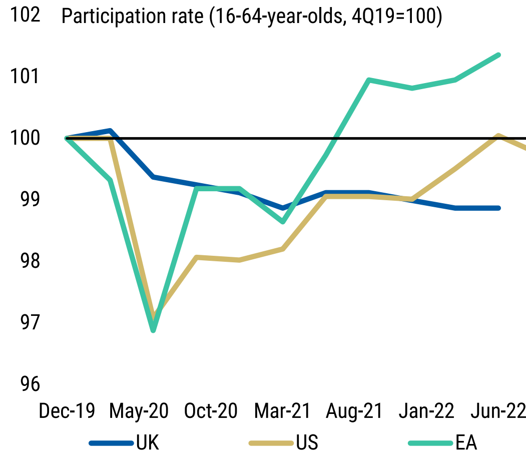


Source: ONS, Morgan Stanley Research forecasts

2. A return of labour supply: Another reason for the UK's structurally higher inflation and a contributor to its weak potential growth is the fact that labour supply has remained constrained. The combined effects of long Covid, long NHS waiting lists and Brexit have led to a subdued labour participation rate in the UK, one which lags behind its peers (Exhibit 57).

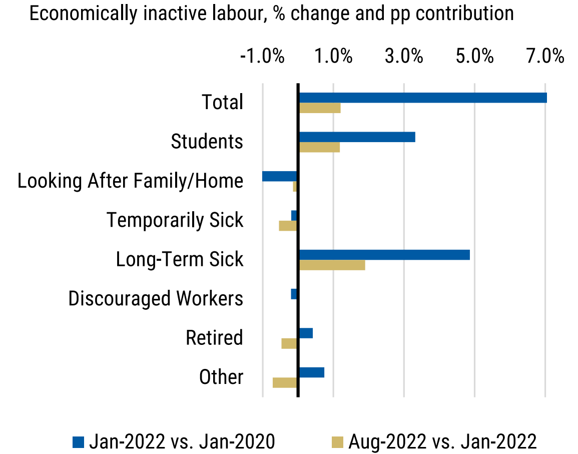
Policymakers could incentivise labour market inflows through NHS funding, return-to-work schemes for younger workers and targeted work permits for lower-skilled sectors. With the government's tightened purse strings, more spending on this front would come as a surprise. Other potentially 'easier' ways of increasing labour supply could be relaxing immigration rules and/or a softer Brexit.

Exhibit 57: UK's labour force participation rate, post Covid, continues to lag its peers



Source: Haver Analytics, Morgan Stanley Research

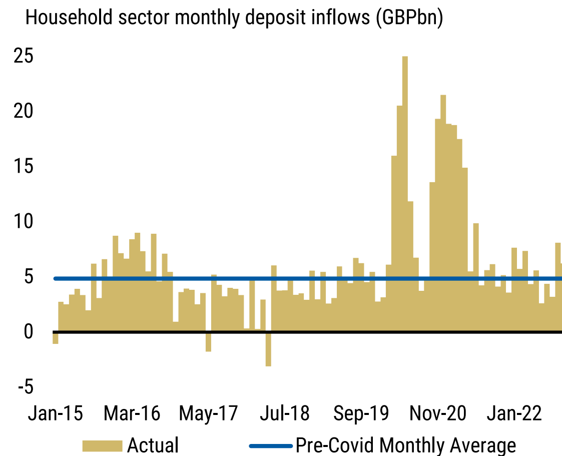
Exhibit 58: ... and this is largely due to a surge in long-term sickness and more leaving the workforce for education



Source: ONS, Morgan Stanley Research

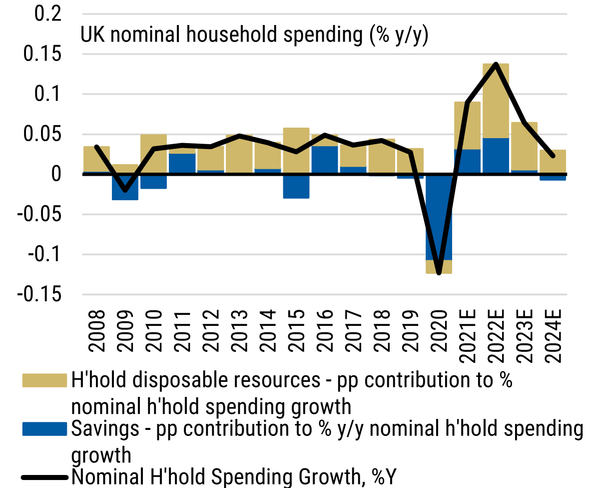
3. A more resilient consumer, either through tapping on excess savings or on a fresh surge in wage growth. UK consumers have continued to build up on their excess savings (Exhibit 59), which they have been tapping over the past two years to boost consumption (Exhibit 60). While we don't expect this to be the case especially as the high cost of living erodes purchasing power, consumers tapping into savings to fuel consumption could be a potential driver of a more resilient growth outlook in 2023.

Exhibit 59: UK consumers have continued to build up on their excess savings



Source: BoE, Morgan Stanley Research

Exhibit 60: A savings drawdown could support consumption meaningfully



Source: ONS, Morgan Stanley Research forecasts

Surprise #8: Citizens could cushion a Canadian condo crash

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We think a surprise surge in immigration to Canada may help to insulate growth from a housing market downturn. Investors have focused on the possibility that slower Canadian growth may weigh on growth and CAD in 2023. A surprise pronounced rise in new Canadian immigrants may keep growth supported and put additional downward pressure on USD/CAD.

Expectations for a steep drop in Canadian house prices and housing sector activity (construction and unemployment) have been a regular theme of our conversations with investors this year. They usually ask *when* an ongoing slowdown in the housing sector will weigh meaningfully on growth and CAD – rather than *whether* CAD will be impacted.

CAD has underperformed recently, in part because of concerns around the housing market (and the Bank of Canada's related concerns). The driver of these concerns is clear – on a variety of metrics, Canadian house prices have peaked and have started to decline (see Exhibit 62).

Declining house prices are not the only reason for CAD underperformance. Brent oil prices have fallen below US$80/bbl after hovering between US$90-100/bbl for much of the third and fourth quarters.

The Bank of Canada recently tied its policy outlook to its assessment of "how tighter monetary policy is working to slow demand" and forecasts that a contraction in housing activity will shave 0.9pp and 0.6pp off growth from 2022 and 2023, respectively.

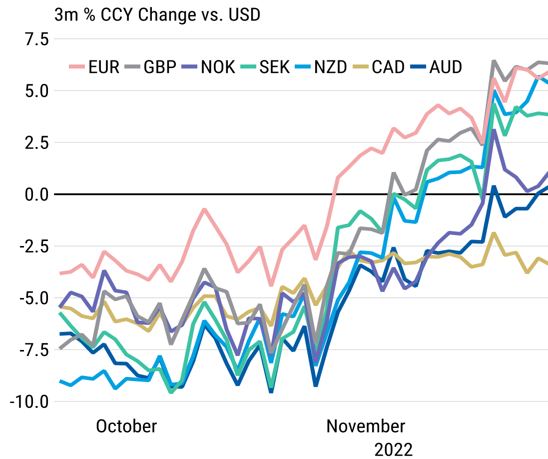
We expect the Canadian dollar to outperform in 2023 despite a housing downturn. There are several reasons for this.

In March, the Bank of Canada played down concerns about the housing sector, noting that personal bank accounts showed a significant amount of savings and households generally appeared to be in better financial shape than at the start of the 2017-18 tightening cycle.

The BoC also cited tightened mortgage lending standards, which should limit financial sector spillover from a housing downturn. In addition, while roughly one-third of Canadian mortgage balances outstanding are variable rate (more than in New Zealand, the UK, and the US), the average tenor of Canadian mortgages is longer than in comparable countries like New Zealand and Australia.

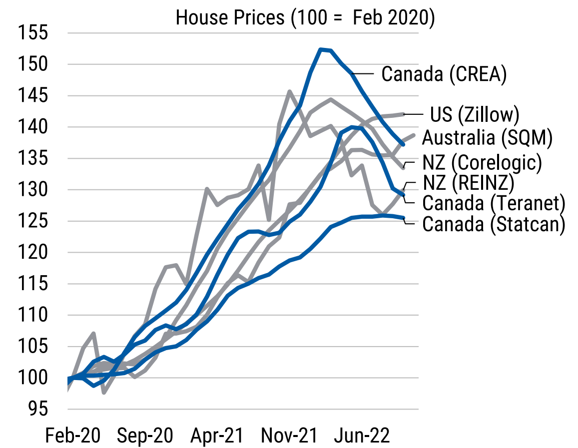
In addition, **we see the potential for a surprise surge in immigration to boost demand for housing and prevent sustained declines in house prices.**

Exhibit 61: CAD has underperformed in recent days



Source: Bloomberg, Morgan Stanley Research

Exhibit 62: The Canadian housing market continues to cool

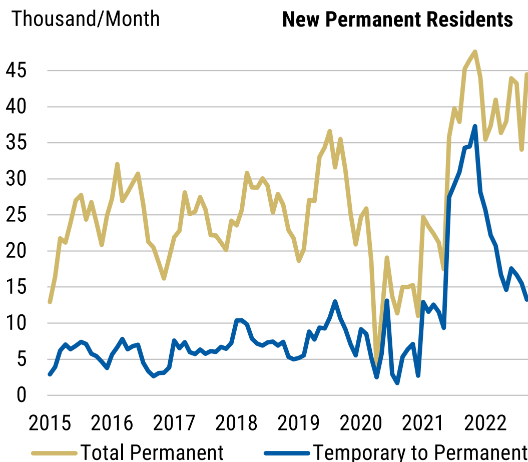


Source: Bloomberg, Macrobond, CREA, Zillow, SQM, CoreLogic, REINZ, Teranet, Statistics Canada, Morgan Stanley Research

The most recent data from the Canadian government show that Canada is adding roughly 40,000 permanent residents per month – a pace of roughly 480,000 new permanent residents per year (see Exhibit 63). That rise in immigration increase represents the lion's share of Canadian population growth, which totaled around 703k between 3Q21 and 3Q22.

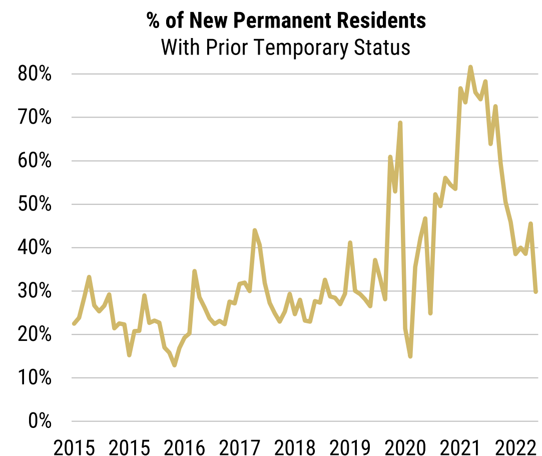
The government's latest plans are to accelerate these additions to the Canadian population and it aims to be adding new permanent residents at a 500,000/year pace by 2025.

Exhibit 63: Canada continues to add new permanent residents...



Source: Canada Immigration, Refugees and Citizenship, Morgan Stanley Research

Exhibit 64: ...and an increasing percentage are coming from outside Canada



Source: Canada Immigration, Refugees and Citizenship, Morgan Stanley Research

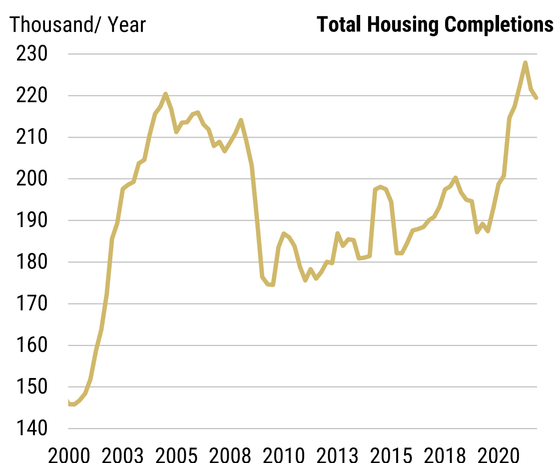
Since mid-2021, Canada has added a large number of permanent residents every month.

During the period between mid-2021 and mid-2022, many of them were already present in Canada as students or workers on temporary visas.

While conversions of temporary residents to permanent residents boost the medium-term growth outlook in Canada (since workers will not leave the country and may be more inclined to invest resources domestically), they do not introduce new demand for housing.

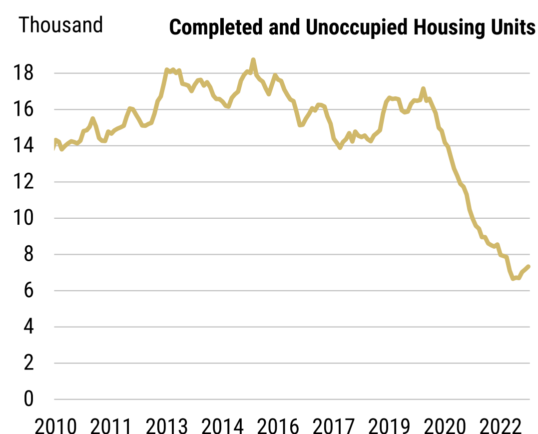
In recent months, Canada has sustained a high rate of immigration but new permanent residents are increasingly coming from outside Canada, adding to demand for housing. The percentage of new permanent residents with prior temporary status has declined to its historical trend (see Exhibit 64).

Exhibit 65: Housing completions have increased...



Source: Canadian Mortgage and Housing Corporation, Morgan Stanley Research

Exhibit 66: ...but demand remains firm



Source: Canadian Mortgage and Housing Corporation, Morgan Stanley Research. Note: Reflects units in census metropolitan areas and towns of population >50k – definition here.

Given the large ongoing additions to the Canadian population from outside the country, we see scope for rising demand for housing to overwhelm both additions to the Canadian housing stock (see Exhibit 65) and existing unoccupied housing (see Exhibit 66).

While new home construction has picked up considerably, the very low rates of unoccupied housing units show that demand may remain relatively firm. Resilient demand (in part due to immigration) may limit the downside risks to growth in 2023.

We therefore see the potential for investors to be surprised as the negative impact of the housing slowdown on growth slows in 2023 – in line with the Bank of Canada's forecast for a smaller drag on growth next year.

Canadian growth resilience would likely surprise investors who expect USD/CAD to rise as the housing market cools.

Surprise #9: The Fed reviews its 2% target

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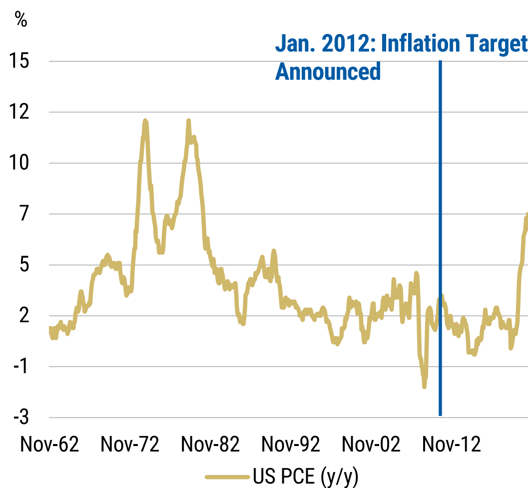
The 2% target is so 2012...

The surprise? The Fed starts considering changes to its 2% target, as it approaches the 2025 framework review. This would come in the form of Jackson Hole papers/Fedspeak addressing the merits of the current "average" 2% target. One possibility is that the Fed lowers its commitment to 2%, by embracing a 1-3% range for inflation.

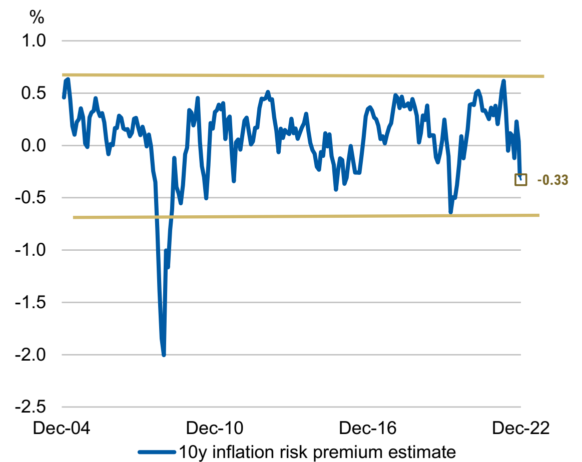
The implications? New frameworks allow the Fed to embrace inflation that deviates from 2%. In the context of strong inflation in 2021/2022, the first reaction from the market would be to price *higher inflation risk premia* (see Exhibit 68) and marginally push up the inflation expectation embedded into breakevens. For the medium term, the Fed's comfort with inflation somewhat lower *than 2%* allows investors to discount the odds of future QE and increases *real term premiums*. Changes to the 2% inflation target means both long-term breakevens and nominal yields rise in 2023.

Exhibit 67: US PCE since 1960



Source: Bloomberg, Morgan Stanley Research

Exhibit 68: 10y inflation risk premium



Source: Bloomberg, Morgan Stanley Research

Why is this possibility not in our base case/unlikely? Altering the inflation target is unlikely because:

1. The December FOMC meeting reiterated the Fed's commitment to tackling inflation (see quote below);
2. Currently, it is politically palatable to do "whatever it takes" to ensure price stability;
3. The next framework revision in 2025 remains quite some time off.

Jerome Powell, December 2022 FOMC: *"55% of the index PCE and core inflation index is non-housing-related core services. And that's really a function of the labor market… so that part of it, which is the biggest part, is likely to take a substantial period to get down… That's why we're running down the high rates and why we're expecting they'll have to remain high for a time."*

Why *could* it happen? To start, it's worth describing the Fed's current framework. The Fed instituted the 2% PCE target in January 2012 to ensure that longer-term inflation expectations remain rooted. Anchored expectations are viewed as essential to meeting the Fed's price stability mandate.

The motivation behind 2% was to (1) avoid deflation and (2) provide sufficient space to cut nominal rates to stimulate the economy. The 2012 framework was modified in 2020, when the Fed adopted "flexible average inflation-targeting" (FAIT). FAIT specified that the Fed would target inflation *overshoots* following inflation shortfalls during downturns (for more, see here).

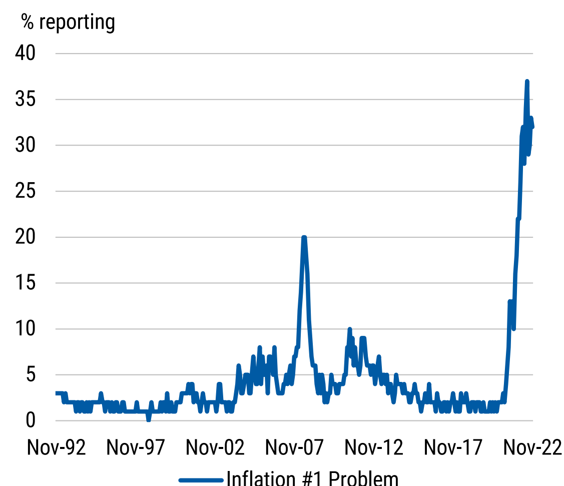
Accordingly, Fed policy in 2022 has been aimed at bringing inflation to 2%. Our Phillips curve (PC) inflation model suggests the unemployment rate necessary to bring CPI to this target might be an unemployment rate above 4.6% that the Fed penciled in for 2023 in its December economic projections (see Exhibit 69). Will the Fed be able to achieve this?

Exhibit 69: Simulations of YE23 CPI y/y implied by our PC model

Non-Phillips Curve CPI (%)	Unemployment rate (%) 3.6	4.1	4.6	5.3	5.6	6.1
-2.0	3.3	3.0	2.6	**2.2**	**2.0**	**1.8**
-1.0	3.8	3.4	3.1	2.6	**2.5**	**2.2**
0.0	4.3	3.9	3.6	3.1	3.0	2.7
1.0	4.7	4.4	4.0	3.6	3.4	3.2
2.0	5.2	4.8	4.5	4.0	3.9	3.6
3.0	5.7	5.3	5.0	4.5	4.4	4.1
4.0	6.1	5.8	5.5	5.0	4.8	4.6
5.0	6.6	6.3	5.9	5.5	5.3	5.0
6.0	7.1	6.7	6.4	5.9	5.8	5.5

Source: Bloomberg, Morgan Stanley Research; Note: Vertical axis = assumed non-PC inflation. Horizontal axis = assumed unemployment rate.

Exhibit 70: NFIB data find small businesses concerned about inflation



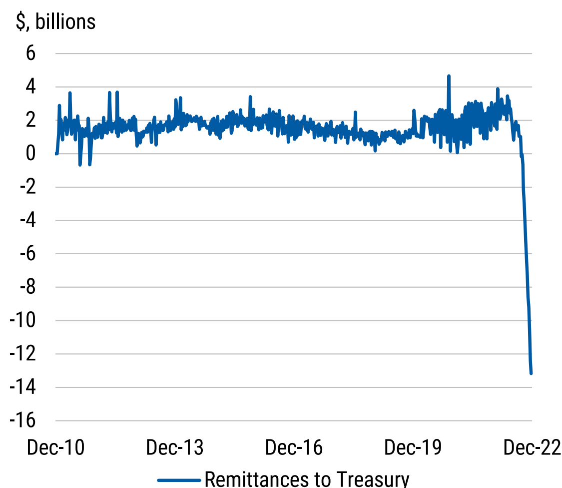
Source: Haver Analytics, Morgan Stanley Research

Curbing inflation has been politically in vogue this year. Consider, for example, the Inflation Reduction Act, the focus on inflation in the US midterms, and small business survey data (see Exhibit 70).

The Fed has thus had leeway to tackle inflation by loosening the labor market, as inflation reached as high as 9% earlier in 2022. **Hiking to increase unemployment with inflation at 4%, however, could prove politically trickier, leading to mounting pressure to embrace >2% inflation.**

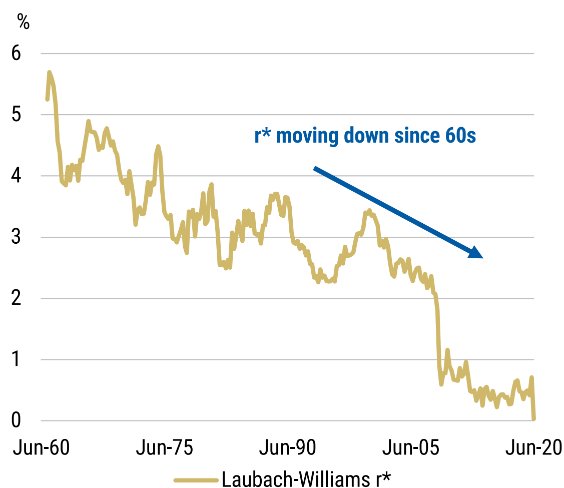
On the fiscal front, the US Treasury next year will need to fund a large deficit and US$720 billion in QT rolloffs. The cost of doing so will be larger if the Fed keeps rates higher for longer - something already likely to happen amid 3-4 years of projected negative remittances (see Exhibit 71). This could lead to more political pressure on the Fed to consider reining in its hawkish policies – or, alternatively, make changes to the inflation target itself.

Exhibit 71: Remittances to Treasury turning sharply negative



Source: Bloomberg, Morgan Stanley Research

Exhibit 72: Laubach-Williams r* on a downtrend since 1960s



Source: Bloomberg, Morgan Stanley Research

Finally, the Fed indicating it has more comfort with inflation above 2% would lead to higher nominal rates, providing the Fed with more room to cut rates in the future. This could be a beneficial amid concerns around secular downtrends in the neutral real rate (see Exhibit 72).

Investors should analyze 2023 Fedspeak and Jackson Hole papers for signs that the Fed is considering reviewing its 2% target. This is what happened leading up to the previous revision, e.g., the "The Three Questions in the Longer Run" section of Powell's 2019 Jackson Hole remarks.

New potential frameworks could include (1) changing the target to a range, e.g., 1-3%, or (2) relying on FAIT to justify inflation deviating from 2% over longer periods , i.e., allowing inflation to overshoot or undershoot.

Surprise #10: EUR and UK breakevens heading to record highs

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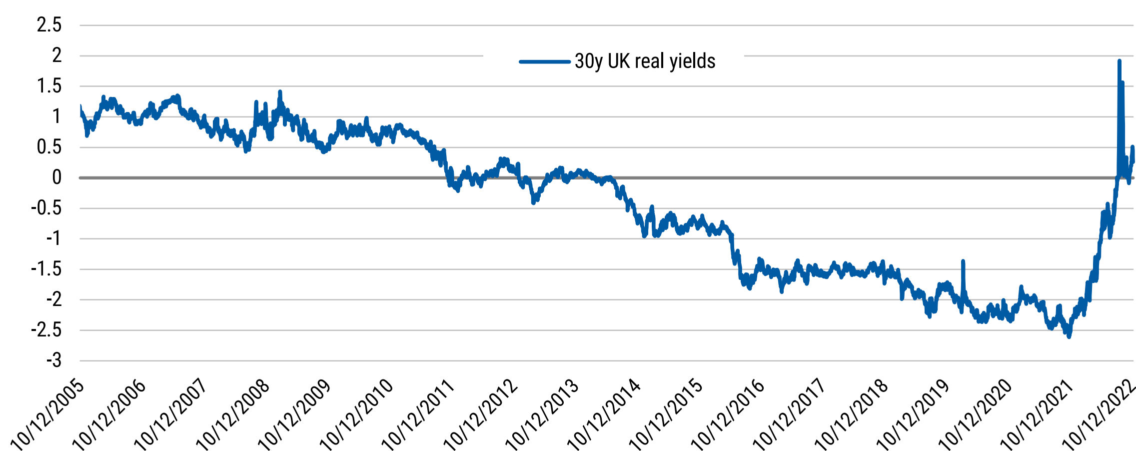
The years 2021 and 2022 will be remembered for the widely unexpected rise and persistence of inflation. Base effects and other technicalities are likely to push inflation lower on both sides of the Atlantic, and the debate is more about the speed of this normalisation rather than whether it happens. Still, this has led to higher ***front-end*** breakevens and particularly flat curves as temporarily high inflation ended up being stickier than many had expected in early 2021.

In this section, we focus on the long-end that could cause the next big surprise in the inflation-linked universe: Could we see a substantial rise in ***long-end*** breakevens? We think this could pose a potential surprise to investors. There are different drivers in these two markets, so we discuss them in separate subsections.

UK breakevens to new highs

Linkers attracted a lot of attention during the LDI crisis, with real yields reaching unusually high levels not justifiable by any fundamental argument. For example, Exhibit 73 shows that, within a 9-month span (12/2021 to 9/2022), 30y real yields rose by about 450bp, with the relevant bonds losing about 72% of their market value. Since then, long linker valuations have been normalising, and we recently flagged a trade opportunity to buy 10y10y RPI swaps (see here). We think it will be a major surprise to the market if long real yields normalise further and move back in the -1% to -2% area.

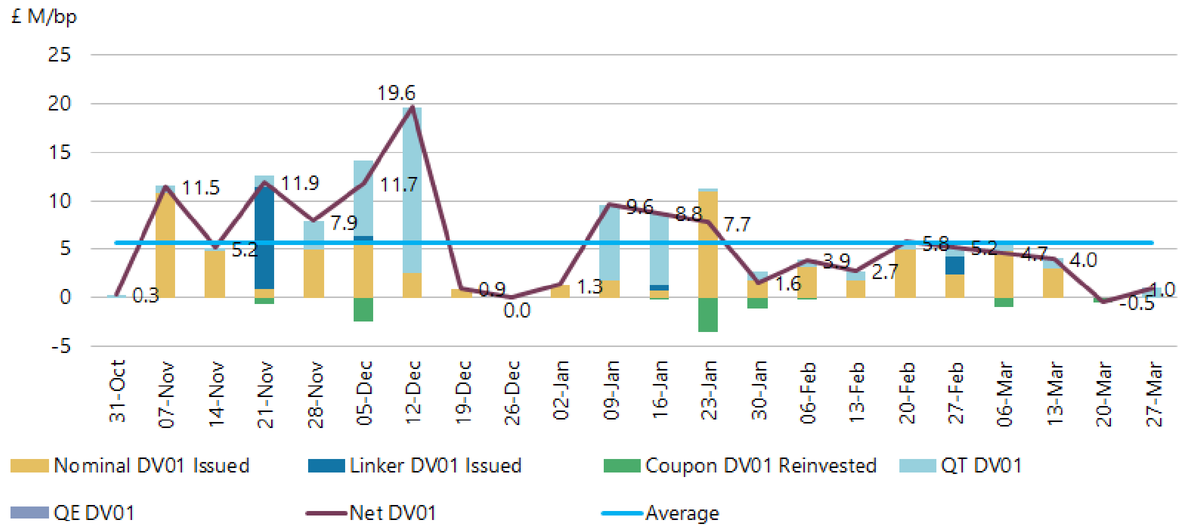
Exhibit 73: Can long real yields move back to the 2021 lows?



Source: Morgan Stanley Research, Bloomberg

We think that an equally significant but more likely surprise could be achieved with long breakevens moving to new highs. Exhibit 74 shows net issuance of gilts in the coming weeks until the end of FY 2022-23. There is not much linker issuance to be seen and, once we exclude the remaining £2.8m/bp of APF financial stability sales set to take place in January, one realises that linkers and RPI swaps would become a scarce asset class.

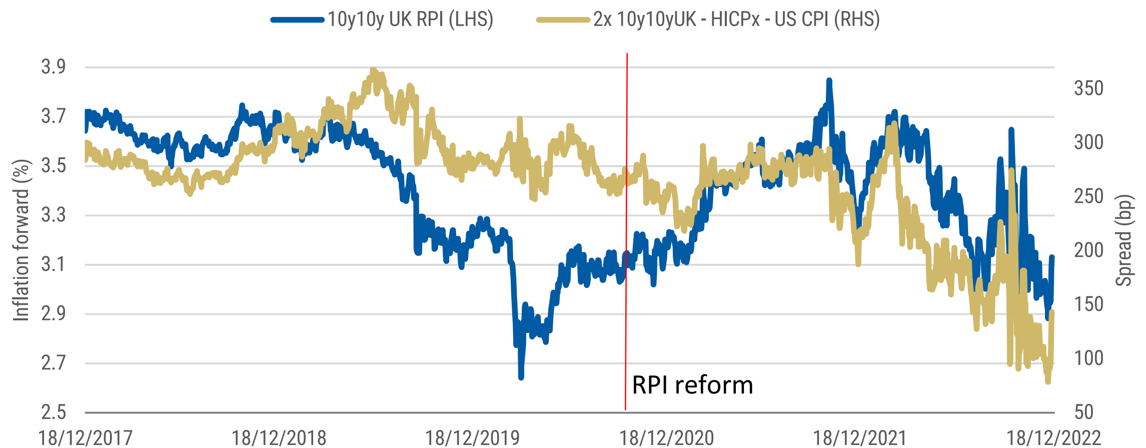
Exhibit 74: UK net issuance until the end of March – not much linker DV01 in sight



Source: Morgan Stanley Research, Bloomberg

Exhibit 75shows how the 10y10y RPI forward has evolved throughout the last 5 years. It seems to be a range-bound series, with the current levels not too dissimilar to the lows in February 2020. UK inflation forwards are also at the cheap end of the range when we examine the EUR - UK - US inflation forward fly. We think there is a possibility for those forwards to move back to highs close to 4%.

Exhibit 75: 10y10y UK RPI forwards vs EUR and US inflation forwards



Source: Morgan Stanley Research, Bloomberg

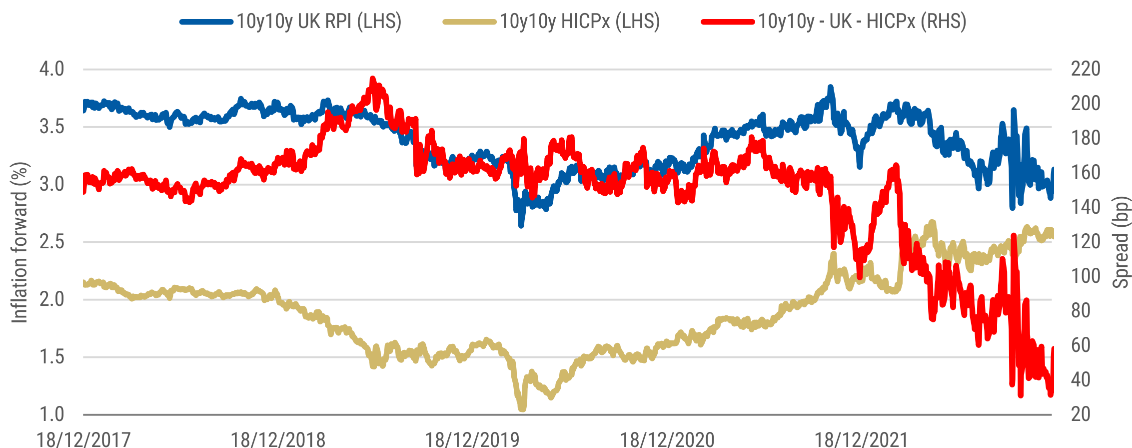
Mind that in late 2020, the RPI reform was confirmed, aligning RPI into CPIH from early 2030. This is important as CPIH is at least 100bp slower than UK RPI, i.e., a forward at 4% now would be equivalent to a pre-reform RPI forward of 5%. For this possibility to become reality, we will need to see a continuation of pension de-risking along with the DMO cutting linker issuance to the area of 10%-12%.

EUR breakevens to new highs

A very non-consensus theme would be a further rise in long-end EUR inflation forwards. As Exhibit 76 shows, long-dated EUR inflation forwards have been on a persistent rise since the lows of the Covid-19 crisis in March 2020. However, at levels above 2.5%, the market implies 1) that the ECB will have a persistent high inflation problem, not being able to send inflation back to target; 2) a lack of Eurolinker issuance, especially at the long-end of the curve, that would make valuations unusually rich; and 3) de-risking demand and the need for indexation picks up, so more buying of long linkers from accounts in continental Europe.

We suspect the latter two points could really push valuations richer around the 2.75-3.0% area. This would make the EUR inflation market trade in a similar fashion to the UK linker market during the 2013-2017 period when demand tended to outstrip supply. Progress on Dutch pension reform and a shift toward more indexation would be necessary for this scenario to pan out. But most regulatory aspects usually require time to be implemented, so this scenario could take years to pan out. However, it is has the potential to surprise the market.

Exhibit 76: Comparison of long EUR and UK inflation forwards



Source: Morgan Stanley Research, Bloomberg

Technical Analysis

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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 77: Government bond yield weekly pivots, support and resistance levels

	UST 10y	CAN 10y	DBR 10y	UKT 10y	JGB 20y	ACGB 10y
Weekly resistance 3	3.721	2.991	2.433	3.590	1.205	3.568
Weekly resistance 2	3.639	2.947	2.363	3.525	1.191	3.540
Weekly resistance 1	3.588	2.934	2.295	3.470	1.172	3.514
Weekly pivot high	3.507	2.863	2.107	3.310	1.127	3.442
Weekly pivot low	3.483	2.840	2.071	3.278	1.120	3.428
Weekly Support 1	3.425	2.796	2.001	3.213	1.106	3.400
Weekly Support 2	3.375	2.783	1.933	3.158	1.087	3.374
Weekly Support 3	3.340	2.747	1.848	3.085	1.067	3.341

Source: Morgan Stanley Research

Exhibit 78: Foreign exchange rates weekly pivots, support, and resistance levels

	DXY	EURUSD	USDJPY	GBPUSD	AUDUSD	USDCAD
Weekly resistance 3	106.30	1.0838	140.07	1.2564	0.6968	1.3827
Weekly resistance 2	105.61	1.0775	139.20	1.2439	0.6885	1.3795
Weekly resistance 1	105.19	1.0751	138.68	1.2363	0.6834	1.3756
Weekly pivot high	104.50	1.0641	136.87	1.2238	0.6751	1.3657
Weekly pivot low	104.24	1.0609	136.44	1.2209	0.6733	1.3641
Weekly Support 1	103.81	1.0546	135.57	1.2113	0.6668	1.3609
Weekly Support 2	103.38	1.0522	135.05	1.2037	0.6617	1.3570
Weekly Support 3	103.22	1.0467	134.19	1.1971	0.6572	1.3526

Source: Morgan Stanley Research

Exhibit 79: Foreign exchange rates weekly pivots, support, and resistance levels

	EURJPY	EURCHF	EURNOK	EURSEK	NOKSEK	AUDNZD
Weekly resistance 3	148.25	0.9969	10.7146	11.1723	1.0686	1.0734
Weekly resistance 2	147.40	0.9948	10.6197	11.1362	1.0645	1.0660
Weekly resistance 1	147.02	0.9933	10.5610	11.0929	1.0595	1.0614
Weekly pivot high	145.45	0.9886	10.4660	10.9825	1.0469	1.0540
Weekly pivot low	145.02	0.9875	10.4331	10.9645	1.0448	1.0523
Weekly Support 1	144.17	0.9855	10.3711	10.9284	1.0407	1.0466
Weekly Support 2	143.79	0.9840	10.3124	10.8851	1.0357	1.0420
Weekly Support 3	143.02	0.9818	10.2833	10.8360	1.0301	1.0381

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 80: Summary of cyclical (tactical & strategic) and secular bull, bear, and range-bound rates markets

	Daily Last	Daily Cloud Lower	Daily Cloud Upper	200d MA	Cyclical Tactical Daily	Cyclical Strategic Weekly	Secular Monthly
UST 2y	4.178	4.091	4.503	3.355	Range bound	Bear Market	Bear Market
UST 5y	3.624	3.876	4.202	3.289	Bull Market	Bear Market	Bear Market
UST 10y	3.482	3.712	4.027	3.186	Bull Market	Bear Market	Bear Market
UST 30y	3.545	3.814	4.135	3.304	Bull Market	Bear Market	Bear Market
DBR 2y	2.425	1.660	2.057	0.985	Bear Market	Bear Market	Bear Market
DBR 5y	2.220	1.803	2.082	1.221	Bear Market	Bear Market	Bear Market
DBR 10y	2.152	1.998	2.211	1.415	Range bound	Bear Market	Bear Market
DBR 30y	1.987	2.051	2.183	1.515	Bull Market	Bear Market	Bear Market
UKT 2y	3.487	3.457	3.807	2.418	Range bound	Bear Market	Bear Market
UKT 5y	3.308	3.712	3.721	2.455	Bull Market	Bear Market	Bear Market
UKT 10y	3.329	3.656	3.703	2.588	Bull Market	Bear Market	Bear Market
UKT 30y	3.672	3.923	4.048	2.841	Bull Market	Bear Market	Bear Market
JGB 10y	0.254	0.251	0.264	0.237	Range bound	Bear Market	Bear Market
JGB 20y	1.148	1.089	1.134	0.903	Bear Market	Bear Market	Bear Market
JGB 30y	1.481	1.451	1.518	1.222	Range bound	Bear Market	Bear Market
JGB 40y	1.697	1.651	1.750	1.369	Range bound	Bear Market	Bear Market
ACGB 2y	3.134	3.264	3.347	2.765	Bull Market	Bear Market	Bear Market
ACGB 5y	3.233	3.533	3.617	3.201	Bull Market	Bear Market	Bear Market
ACGB 10y	3.455	3.874	3.926	3.469	Bull Market	Bear Market	Bear Market
ACGB 20y	3.809	4.218	4.287	3.791	Bull Market	Bear Market	Bear Market
NZGB 2y	4.837	4.284	4.455	3.708	Bear Market	Bear Market	Bull Market
NZGB 5y	4.337	4.294	4.409	3.756	Range bound	Bear Market	Bull Market
NZGB 10y	4.268	4.384	4.466	3.855	Bull Market	Bear Market	Bear Market
CAN 2y	3.660	3.930	4.027	3.248	Bull Market	Bear Market	Bear Market
CAN 5y	2.917	3.528	3.554	3.032	Bull Market	Bear Market	Bear Market
CAN 10y	2.814	3.393	3.409	2.995	Bull Market	Range bound	Bear Market
CAN 30y	2.874	3.353	3.457	2.982	Bull Market	Bear Market	Bear Market

Source: Morgan Stanley Research, Bloomberg

Exhibit 81: Summary of cyclical (tactical and strategic) and secular bull, bear, and range-bound FX markets

	Daily Last	Daily Cloud Lower	Daily Cloud Upper	200d MA	Cyclical Tactical Daily	Cyclical Strategic Weekly	Secular Monthly
DXY	104.80	110.63	111.23	105.89	Bear Market	Bull Market	Bull Market
USDJPY	136.60	145.11	145.31	135.57	Bear Market	Bull Market	Bull Market
USDCAD	1.3699	1.3466	1.3601	1.3073	Bull Market	Bull Market	Range bound
USDCHF	0.9337	0.9814	0.9889	0.9647	Bear Market	Bear Market	Bear Market
USDNOK	9.8960	10.3805	10.4086	9.7941	Bear Market	Bull Market	Bear Market
USDSEK	10.4119	10.9551	10.9643	10.3075	Bear Market	Bull Market	Bull Market
EURUSD	1.0586	0.9879	0.9952	1.0344	Bull Market	Bear Market	Bear Market
GBPUSD	1.2148	1.1044	1.1384	1.2100	Bull Market	Bear Market	Bear Market
AUDUSD	0.6685	0.6427	0.6543	0.6896	Bull Market	Bear Market	Range bound
NZDUSD	0.6373	0.5834	0.5837	0.6267	Bull Market	Bear Market	Range bound
EURJPY	144.83	142.90	145.07	139.98	Range bound	Bull Market	Bull Market
NOKSEK	1.0520	1.0546	1.0606	1.0529	Bear Market	Range bound	Bull Market
AUDNZD	1.0485	1.1053	1.1182	1.1011	Bear Market	Bear Market	Bull Market
USDBRL	5.3073	5.2144	5.2197	5.1217	Bull Market	Bull Market	Bull Market
USDMXN	19.78	19.68	19.95	20.02	Range bound	Bear Market	Bear Market
USDARS	172.69	148.13	155.19	133.18	Bull Market	Bull Market	Bull Market
USDCLP	886.90	923.36	935.91	887.08	Bear Market	Bull Market	Bull Market
USDCOP	4,787.80	4,727.86	4,873.18	4,298.00	Range bound	Bull Market	Bull Market
USDPEN	3.8380	3.9170	3.9553	3.8342	Bear Market	Range bound	Bull Market
USDZAR	17.68	17.74	17.95	16.59	Bear Market	Bull Market	Bull Market
USDTRY	18.6857	18.2421	18.4856	17.1951	Bull Market	Bull Market	Bull Market
USDILS	3.4560	3.4650	3.5323	3.3944	Bear Market	Bull Market	Bear Market
USDRUB	118.69	76.43	77.44	75.11	Bull Market	Bull Market	Bull Market
USDPLN	4.4291	4.7645	4.8237	4.5567	Bear Market	Bull Market	Bull Market
USDCZK	22.8856	24.5664	24.8264	23.7717	Bear Market	Range bound	Range bound
USDHUF	383.18	413.91	418.37	385.42	Bear Market	Bull Market	Bull Market
USDCNY	6.9740	7.0802	7.2293	6.7887	Bear Market	Bull Market	Bull Market
USDIDR	15,598.00	15,284.00	15,563.75	14,932.24	Bull Market	Bull Market	Bull Market
USDINR	82.87	81.16	82.14	79.12	Bull Market	Bull Market	Bull Market
USDKRW	1,307.05	1,387.13	1,398.60	1,310.62	Bear Market	Bull Market	Bull Market
USDMYR	4.4245	4.6079	4.7062	4.4353	Bear Market	Bull Market	Bull Market
USDPHP	55.57	57.46	58.40	55.07	Bear Market	Bull Market	Bull Market
USDSGD	1.3590	1.4072	1.4154	1.3874	Bear Market	Bear Market	Bear Market
USDTWD	30.7050	31.2865	31.9853	30.2130	Bear Market	Bull Market	Bull Market
USDTHB	34.9750	37.1285	37.7258	35.3793	Bear Market	Bull Market	Bull Market
GOLD	1,793	1,686	1,687	1,787	Bull Market	Bear Market	Bull Market
SILVER	23.22	19.70	20.15	21.20	Bull Market	Bear Market	Bull Market
CRUDE OIL	74.47	84.54	87.43	88.83	Bear Market	Bear Market	Bull Market

Source: Morgan Stanley Research, Bloomberg

G4 Smarter (beta) Trading Strategy

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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 82: 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%	12/15/2022	1/24/2023	12/1/2022	1/26/2023
GE 10y Future	29.25%	0%	100%	0%	100%	-	-	12/16/2022	1/23/2023
US 10y Future	30.50%	100%	0%	100%	100%	11/11/2022	12/19/2022	-	-
UK 10y Future	7.75%	0%	100%	0%	100%	-	-	12/15/2022	1/24/2023

Source: Morgan Stanley Research

Bond Market Indicators

Our BMI(10) models are neutral to bearish in all markets. The vol-adjusted carry signal is only positive for Japan. Momentum signals are mostly bullish but are bearish in Germany and Japan. Equity market signals remain bearish in all markets, though less so than last week.

Our BMI(2) models are neutral to bearish across all markets. The vol-adjusted carry signal is strongly positive in Japan and Germany but bearish in the US, Australia, New Zealand, and Canada. Momentum signals are bearish, aside from Australia. Equity market indicators are broadly bearish.

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

Latest readings

Exhibit 83: Morgan Stanley Bond Market Indicators - BMI(10)

	Vol-Adjusted Carry	Momentum	Equity Markets	Business Cycle	FX	Average	Overall
US	-9.9 (-9.9)	1.7 (1.9)	-7.1 (-8.0)	0.2 (1.6)	-8.4 (4.9)	-4.7 (-1.9)	**-4.7 (-1.9)**
DE	-9.9 (-9.9)	-0.3 (-0.5)	-7.5 (-8.7)	2.2 (2.2)	-8.5 (-9.8)	-4.8 (-5.3)	**-4.8 (-5.3)**
UK	-6.8 (-7.2)	1.6 (1.3)	-6.7 (-8.8)	-4.5 (-7.2)	0.0 (0.0)	-4.1 (-5.5)	**-4.1 (-5.5)**
JP	2.0 (1.1)	-5.8 (-8.8)	-5.5 (-7.2)	-1.4 (-2.4)	9.3 (3.3)	-0.3 (-2.8)	**0.0 (-2.8)**
AU	-5.8 (-5.8)	5.8 (4.4)	-7.7 (-8.6)	0.5 (0.5)	2.8 (-7.0)	-0.9 (-3.3)	**0.0 (-3.3)**
NZ	-9.1 (-9.1)	1.5 (-0.8)	-6.9 (-8.5)	2.5 (2.5)	-4.0 (-5.7)	-3.2 (-4.3)	**-3.2 (-4.3)**
CA	-10.0 (-10.0)	6.5 (6.1)	-5.4 (-7.7)	-7.6 (-7.6)	0.0 (0.7)	-3.3 (-3.7)	**-3.3 (-3.7)**

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 84: Morgan Stanley Bond Market Indicators - BMI(2)

	Vol-Adjusted Carry	Momentum	Equity Markets	Business Cycle	FX	Average	Overall
US	-8.7 (-8.1)	-6.6 (-4.1)	-7.1 (-8.0)	0.2 (1.6)	-9.7 (-2.3)	-6.4 (-4.2)	**-6.4 (-4.2)**
DE	3.6 (1.1)	-5.6 (-5.0)	-7.5 (-8.7)	2.2 (2.2)	9.0 (9.1)	0.3 (-0.3)	**0.0 (0.0)**
UK	0.7 (0.7)	-0.3 (-0.2)	-6.7 (-8.8)	-4.5 (-7.2)	-10.0 (-9.9)	-4.2 (-5.1)	**-4.2 (-5.1)**
JP	10.0 (10.0)	-9.9 (-9.1)	-5.5 (-7.2)	-1.4 (-2.4)	9.5 (0.9)	0.5 (-1.6)	**0.0 (-1.6)**
AU	-3.3 (-3.8)	4.1 (2.2)	-7.7 (-8.6)	0.5 (0.5)	9.4 (7.1)	0.6 (-0.5)	**0.0 (0.0)**
NZ	-1.4 (-3.1)	-8.1 (-7.9)	-6.9 (-8.5)	2.5 (2.5)	-4.1 (-2.4)	-3.6 (-3.9)	**-3.6 (-3.9)**
CA	-9.4 (-9.2)	-1.7 (-1.5)	-5.4 (-7.7)	-7.6 (-7.6)	-4.5 (-6.3)	-5.7 (-6.5)	**-5.7 (-6.5)**

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 85: Morgan Stanley Bond Market Indicators - xBMIs

	Long US	Long DE	Long UK	Long JP	Long AU	Long NZ	Long CA
vs. US	0.0 (0.0)	0.0 (-1.7)	0.0 (-1.8)	2.2 (0.0)	1.9 (0.0)	0.0 (0.0)	0.0 (0.0)
vs. DE	0.0 (1.7)	0.0 (0.0)	0.0 (0.0)	2.3 (0.0)	2.0 (0.0)	0.0 (0.0)	0.0 (0.0)
vs. UK	0.0 (1.8)	0.0 (0.0)	0.0 (0.0)	1.9 (0.0)	1.6 (0.0)	0.0 (0.0)	0.0 (0.0)
vs. JP	-2.2 (0.0)	-2.3 (0.0)	-1.9 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	-1.5 (0.0)
vs. AU	-1.9 (0.0)	-2.0 (0.0)	-1.6 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
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)	1.5 (0.0)	0.0 (0.0)	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

Exhibit 86: Morgan Stanley Euro Sovereign Bond Market Indicators - eBMI

	Business Cycle Surprises	Momentum	Vol. Adj. Carry	Supply	Risky Assets	Overall
Periphery vs. Core	0.2 (0.0)	3.8 (-0.2)	0.3 (-0.3)	5.2 (5.2)	-7.5 (-4.7)	**0.4 (0.0)**
Semi-Core vs. Core	-2.4 (1.0)	3.6 (4.3)	8.4 (7.5)	-1.2 (-1.2)	-3.5 (-5.7)	**1.0 (1.2)**
Periphery vs. Semi-Core	1.3 (-0.5)	0.1 (-2.2)	-4.0 (-3.9)	3.2 (3.2)	-2.0 (0.5)	**-0.6 (-1.2)**

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.

Exhibit 87: Morgan Stanley Inflation Bond Market Indicators - iBMI

Market	Oil	Momentum	Equities	Value	Average	Overall
TIPS	-4.3 (-5.4)	-4.3 (-0.8)	3.4 (4.0)	5.8 (4.9)	0.1 (0.7)	**0.0 (0.0)**
UKTi	-5.8 (-6.3)	0.0 (0.8)	3.3 (4.8)	8.8 (8.7)	1.6 (2.0)	**1.6 (2.0)**
HICPxT	-5.7 (-6.3)	-0.4 (2.9)	3.8 (4.8)	3.5 (3.0)	0.3 (1.1)	**0.0 (1.1)**
JGBi	-5.4 (-6.3)	2.7 (6.3)	2.8 (3.7)	-4.1 (-4.2)	-1.0 (-0.1)	**0.0 (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.

Swap Spread Indicators

Our SSI(2) models imply that 2y spreads are roughly 7.2bp wide to fair value on a 6m rolling lookback. The 2sd trading threshold is met. Our model-implied fair value can be found on Bloomberg using the ticker MSSIUS2 Index.

Our SSI(10) models imply that 10y spreads are 2.4bp tighter than fair value on a 6m rolling lookback. No trading thresholds are met. Our model-implied fair value on Bloomberg: MSSIUS10 Index.

Our SSI(30) models suggest that 30y spreads are about 31.3bp tighter than fair value on our 2y lookback window. The 0.5sd trading threshold is exceeded. Our model-implied fair value can be found on Bloomberg using the ticker MSSIUS30 Index.

Based on each of the SSI models, the 2s10s spread curve is about 9.7bp flatter than fair value using a 6m lookback. The 10s30s spread curve is roughly 36.5bp flatter than fair value using our 2y lookback window.

Detail on the variable selection and model construction of these Swap Spread Indicators can be found in Modeling Swap Spreads. Within the piece, we discuss the various fundamental and flow-related drivers of 2y, 10y, and 30y spreads, and use these variables to construct multivariate regression models. We then develop and test trading strategies that employ these models. Updates to model-implied fair values, as well as backtesting of trading signals, can be found below.

Latest readings

Exhibit 88: Morgan Stanley Swap Spread Indicators - Model Implied Fair Values

	6m Rolling Lookback Window	2y Rolling Lookback Window	5y Rolling Lookback Window	Matched-Maturity Swap Spread Level
2y Swap Spreads	7.2	24.2	9.9	31.2
10y Swap Spreads	-2.4	5.2	3.7	-2.1
30y Swap Spreads	-36.3	-31.3	-25.7	-36.3
2s10s Swap Spread Curve	-9.7	-19.1	-6.2	-33.3
2s30s Swap Spread Curve	-43.5	-55.6	-35.6	-67.5
10s30s Swap Spread Curve	-33.9	-36.5	-29.4	-34.2

Source: Morgan Stanley Research
Note: The levels shown in the table are the model-implied fair values for each of the spread sectors using various lookback windows. For curves, we calculate model-implied fair value based on the difference between the model-implied fair value of the two individual spreads that make up the spread curve.

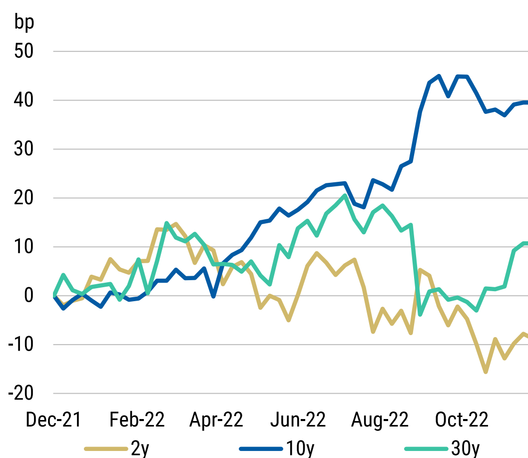
Exhibit 89: Morgan Stanley Swap Spread Indicators - Trading Signals

	Trading Signal*	Trade with 0.5sd threshold?	Trade with 1sd threshold?	Trade with 2sd threshold?
2y Swap Spreads	Tighten	Y	Y	Y
10y Swap Spreads	Tighten	N	N	N
30y Swap Spreads	Widen	Y	N	N

Source: Morgan Stanley Research
Note: The thresholds are derived from the standard deviation of the difference between model-implied fair value and market values for the preferred rolling window for each spread sector.
*We use our preferred lookback windows for the trading signals. Our preferred lookback windows, based on regression fit an explanatory power, are 6m for 2y and 10y spreads and 2y for 30y spreads.
**For curves, we use 2y rolling regression lookback windows for consistency when constructing the trading signals.

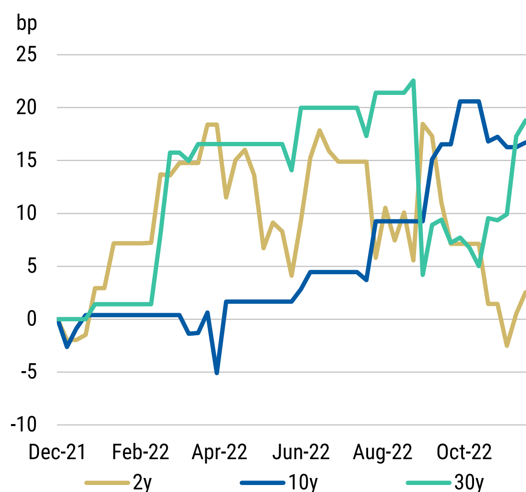
Backtesting results

Exhibit 90: Backtesting results for each spread sector using preferred lookback window and no trading threshold (last 12 months)



Source: Morgan Stanley Research
*Our preferred lookback windows, based on regression fit an explanatory power, are 6m for 2y and 10y spreads and 2y for 30y spreads

Exhibit 91: Backtesting results for each spread sector using preferred lookback window and a trading threshold of 1.0sd (last 12 months)



Source: Morgan Stanley Research
*Our preferred lookback windows, based on regression fit an explanatory power, are 6m for 2y and 10y spreads and 2y for 30y spread

Note about backtesting: The performance data provided is a hypothetical illustration of mathematical principles, it does not predict or project the performance of an investment or investment strategy. Past performance is no guarantee of future results.

Government Bond Supply

In the US, total coupon issuance (re-opening of 20y, 5y TII, new 2y, 5y, 7y) settling at the end of December is $151bn vs. $10bn coupons and $134.3bn redemptions, resulting in net issuance of $6.7bn. **In the euro area,** we estimate zero bn of issuance against €0.13bn coupons in the next week. **In the UK,** UKT 0.25% Gilt 2025s will be issued for £3.25bn against no cash flow coming to the market. **In Japan,** there will be an auction for enhanced liquidity for ¥500bn against ¥1.6trn coupons and ¥18.6trn redemptions. **In Canada,** 10y CAN 2.5% Dec 2032 will be issued for $4bn against no cash flow coming into the market. **In Australia,** there will be no supply but $0.9bn coupons will be paid. **In New Zealand,** there will be no supply or cash flow coming into the market. **In China**, both 2y CGB and 10y CGB will be issued for CNY 60bn each, against CNY 2.9bn coupons and no redemptions. Total issuance settling of LGB will be CNY 12.6bn in the coming week, against no redemptions. Total net issuance (including both LGB and CGB) will be CNY 129.7bn

Exhibit 92: Sovereign supply calendar

Monday	Tuesday	Wednesday	Thursday	Friday
19-DEC	**20-DEC**	**21-DEC**	**22-DEC**	**23-DEC**
	UK: UKT 0.25% Gilt 2025, £3.25bn	US: 5y TIPS Re-opening, $19bn JPY: Auction for Enhanced Liquidity, ¥500bn CNY: 10y CGB, 60bn	US: 20y UST Re-opening, $12bn CAN: 10y CAN 2.5% Dec 2032, $4bn	CNY: 2y CGB, 60bn
26-DEC	**27-DEC**	**28-DEC**	**29-DEC**	**30-DEC**
	US: New 2y UST, $42bn*	ITA: BTPst 1.75% May 2024 Tap, €3bn* US: New 5y UST, $43bn* JPY: Auction for Enhanced Liquidity, ¥500bn*	ITA: BTP Auction, €7bn* US: New 7y UST, $35bn*	
2-JAN	**3-JAN**	**4-JAN**	**5-JAN**	**6-JAN**
***IRE: Possible New 15y, €4bn* ***POR: Possible New 15y, €3bn*		GER: BKO 2.2% 12-Dec-2024 Tap, €5bn **CAN: Possible 10y CAN, $4bn*	FRA: Long Term OAT Auction, €10-11bn* UK: UKT 4.125% 2027, £3.6bn* JPN: 10y JGB, ¥2700bn*	

Source: Morgan Stanley Research, Treasuries
* Morgan Stanley estimate. ** Possible Auction ***The syndication is likely to be conducted in the respective week.

In Case You Missed It

US Economics & Global Macro Strategy: FOMC Reaction: An Inconsistent Message

15 Dec 2022

The FOMC delivered a 50bp rate hike, and we continue to look for a final 25bp increase in February. A marked slowdown in job gains is key to how long 25bp hikes could persist. Our strategists turn neutral on all their trades, to re-evaluate them in early January.

ECB Review: 50, Feeling Like 75

15 Dec 2022

As expected, the ECB slowed down to a 50bp hike today. More rate hikes were signalled as inflation is projected to remain above target. We now expect a total of additional 75bp in rate hikes in 2023, with a terminal rate of 3.25%. QT will start in March 2023. We expect reinvestments to end in 4Q23.

Global Macro Strategy: European Rates: 2023 German issuance

15 Dec 2022

The German treasury announced its 2023 issuance programme this morning. While there were no major surprises regarding green or indexed-linked bonds, the announced number for conventional bond issues was above market consensus and the total volume significantly above the €240bn estimate (including ILBs and green bonds).

Global Macro Strategy: G10 FX Chart Pack

14 Dec 2022

Top charts we are watching for each G10 currency with economic indicators, flows, positioning and drivers.

Norges Bank Preview: Finish Line in Sight

12 Dec 2022

We expect Norges Bank to hike its policy rate by 25bp this week. We then continue to see a 25bp move in March, although the risks are tilted towards the end of the hiking cycle this week. We stay sidelined on NOK due to weakness in equity markets and oil, and uncertainty over the rate path.

Morgan Stanley FX Positioning Tracker

12 Dec 2022

Investors head into the last big week of 2022 with their tactical short USD bias intact – particularly against G10 FX, where NZD, GBP and EUR longs stand out. USD positioning remains far from the December 2020 lows though, leaving plenty of room for shorts to broaden out next year depending on US CPI and the December FOMC meeting. CAD remains a laggard in the G10 amid a more flexible BoC, with asset managers adding to shorts in the futures market. Our view of further BoC tightening ahead keeps USD/CAD shorts attractive. In EM, CNY shorts continued to be unwound as Covid restrictions were eased despite rising cases. USD/CNY positioning has turned neutral for the first time since May 2022. KRW and SGD remain the favoured longs, while ZAR, INR and IDR lag

Forecasts

Government bonds

Exhibit 93: Morgan Stanley sovereign 2y, 5y, 10y, and 30y yield base case forecasts

	2Y				5Y				10Y				30Y			
	1Q23	2Q23	3Q23	4Q23	1Q23	2Q23	3Q23	4Q23	1Q23	2Q23	3Q23	4Q23	1Q23	2Q23	3Q23	4Q23
US	4.30	4.15	3.85	3.50	4.05	3.90	3.75	3.50	3.90	3.75	3.65	3.50	4.10	3.90	3.75	3.55
Germany	1.50	1.20	1.00	0.90	1.60	1.30	1.20	1.10	1.75	1.60	1.60	1.50	1.90	1.80	1.80	1.80
Japan	-0.05	-0.05	0.00	0.00	0.00	0.00	0.20	0.10	0.25	0.25	0.50	0.45	1.30	1.35	1.40	1.30
UK	3.00	2.80	2.60	2.50	3.30	3.10	2.90	2.80	3.40	3.20	3.20	3.10	3.40	3.30	3.30	3.20
Canada	4.15	3.90	3.65	3.40	3.75	3.65	3.55	3.45	3.60	3.55	3.45	3.30	3.55	3.45	3.40	3.30
Australia	3.25	3.15	3.05	2.95	3.50	3.40	3.30	3.15	3.80	3.65	3.50	3.35	4.10	3.90	3.75	3.55
New Zealand	4.60	4.50	4.40	4.30	4.55	4.45	4.35	4.25	4.60	4.50	4.45	4.35	4.80	4.70	4.60	4.50
Austria*	5	5	5	5	35	30	30	30	60	55	55	55	70	65	65	65
Netherlands*	0	0	0	0	15	10	10	10	25	20	20	20	25	20	20	20
France*	10	5	5	5	30	25	25	25	45	40	40	40	75	70	70	70
Belgium*	5	5	5	5	30	25	25	25	50	45	45	45	80	75	75	75
Ireland*	10	5	5	5	15	15	15	15	40	35	35	35	80	75	75	75
Spain*	20	15	15	15	50	45	45	45	95	85	85	85	135	125	125	125
Italy*	75	65	65	65	140	140	120	105	210	210	185	175	220	220	210	195
Portugal*	10	10	10	10	40	35	35	35	85	75	75	75	125	115	115	115

Source: Morgan Stanley Research, *Spread to German Bunds

Exhibit 94: Morgan Stanley sovereign 10-year yield bull, base, and bear case forecasts

	Bull				Base				Bear			
	1Q23	2Q23	3Q23	4Q23	1Q23	2Q23	3Q23	4Q23	1Q23	2Q23	3Q23	4Q23
US	4.50	3.55	2.55	2.10	3.90	3.75	3.65	3.50	4.60	4.70	4.50	4.50
Germany	2.25	1.80	1.50	1.20	1.75	1.60	1.60	1.50	2.25	2.35	2.00	1.80
Japan	0.25	0.15	0.10	0.10	0.25	0.25	0.50	0.45	0.25	0.25	0.65	0.75
UK	3.50	3.30	3.10	2.80	3.40	3.20	3.20	3.10	3.70	3.70	3.50	3.40
Canada	3.20	3.05	3.00	2.95	3.60	3.55	3.45	3.30	3.80	3.90	3.95	4.00
Australia	3.45	3.25	3.15	3.05	3.80	3.65	3.50	3.35	4.15	4.35	4.45	4.55
New Zealand	4.15	4.00	3.95	3.90	4.60	4.50	4.45	4.35	4.85	5.00	5.05	5.10
Austria*	55	45	45	45	60	55	55	55	65	65	65	65
Netherlands*	20	20	20	20	25	20	20	20	30	30	30	30
France*	40	35	35	35	45	40	40	40	50	50	50	50
Belgium*	45	35	35	35	50	45	45	45	55	55	55	55
Ireland*	35	30	30	30	40	35	35	35	45	45	45	45
Spain*	85	75	75	75	95	85	85	85	110	115	115	115
Italy*	175	165	165	160	210	210	185	175	235	255	265	260
Portugal*	75	65	65	65	85	75	75	75	105	110	110	110

Source: Morgan Stanley Research, *Spread to German Bunds

Foreign exchange

Exhibit 95: Morgan Stanley foreign exchange base case forecasts

	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24
EUR/USD	1.00	1.02	1.04	1.06	1.08	1.08	1.08	1.08	1.08
USD/JPY	147	146	145	141	140	137	134	130	127
GBP/USD	1.12	1.13	1.14	1.15	1.16	1.18	1.20	1.22	1.24
USD/CHF	0.98	0.97	0.96	0.95	0.94	0.95	0.96	0.96	0.97
USD/SEK	10.90	10.59	10.19	9.81	9.54	9.48	9.42	9.37	9.31
USD/NOK	10.50	10.10	9.62	9.25	8.89	8.89	8.88	8.88	8.87
USD/CAD	1.37	1.35	1.33	1.31	1.29	1.27	1.26	1.24	1.23
AUD/USD	0.64	0.66	0.67	0.69	0.70	0.73	0.75	0.78	0.80
NZD/USD	0.59	0.61	0.63	0.65	0.67	0.67	0.67	0.67	0.67
EUR/JPY	147	149	151	149	151	148	144	141	137
EUR/GBP	0.89	0.90	0.91	0.92	0.93	0.92	0.90	0.89	0.87
EUR/CHF	0.98	0.99	1.00	1.01	1.02	1.03	1.03	1.04	1.05
EUR/SEK	10.90	10.80	10.60	10.40	10.30	10.24	10.18	10.12	10.06
EUR/NOK	10.50	10.30	10.00	9.80	9.60	9.60	9.60	9.60	9.60
USD/CNY	7.25	7.05	6.90	6.85	6.80	6.70	6.60	6.55	6.50
USD/HKD	7.85	7.83	7.82	7.81	7.79	7.78	7.77	7.76	7.75
USD/IDR	15700	15400	15100	14900	14700	14700	14700	14700	14700
USD/INR	81.5	80.0	79.0	78.0	77.0	76.5	76.1	75.6	75.1
USD/KRW	1370	1340	1320	1300	1280	1266	1253	1239	1225
USD/MYR	4.70	4.60	4.50	4.45	4.40	4.32	4.24	4.16	4.08
USD/PHP	58.0	57.0	56.5	56.0	55.0	55.2	55.5	55.7	55.9
USD/SGD	1.40	1.385	1.375	1.365	1.355	1.355	1.355	1.355	1.355
USD/TWD	32.0	31.6	31.3	31.1	30.9	30.9	31.0	31.0	31.1
USD/THB	37.0	36.3	35.5	35.0	34.5	34.5	34.5	34.5	34.5
USD/BRL	4.90	4.95	5.00	5.10	5.10	5.03	4.96	4.89	4.82
USD/MXN	19.70	19.65	19.60	20.15	20.50	20.54	20.58	20.61	20.65
USD/ARS	176.3	210.0	240.8	276.1	452.2	577.5	687.8	788.6	887.1
USD/CLP	930	900	880	860	840	837	835	832	829
USD/COP	5100	5150	5125	5100	5075	4644	4600	4600	4600
USD/PEN	3.95	3.85	3.75	3.65	3.50	3.50	3.50	3.50	3.50
USD/ZAR	17.5	17.0	16.8	16.5	16.3	16.2	16.2	16.2	16.2
USD/TRY	20.00	21.00	22.00	23.00	24.00	24.00	24.00	24.00	24.00
USD/ILS	3.60	3.70	3.65	3.60	3.55	3.57	3.58	3.60	3.62
EUR/PLN	4.80	4.75	4.70	4.65	4.60	4.56	4.53	4.49	4.46
EUR/CZK	24.8	25.0	25.4	25.8	26.0	26.4	26.9	27.3	27.7
EUR/HUF	400	380	370	360	350	353	355	358	360
DXY	111	109	107	105	104	103	102	102	101
Fed Broad USD	126	125	123	122	121	121	120	119	118

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

Exhibit 96: Morgan Stanley foreign exchange Base, Bear, Bull scenarios

4Q23	Bear	Base	Bull
EUR/USD	1.04	1.08	1.14
GBP/USD	1.09	1.16	1.21
USD/JPY	127	140	147
AUD/USD	0.67	0.70	0.75
USD/CNY	6.50	6.80	7.10
USD/INR	72.4	77.0	80.1
USD/ZAR	15.5	16.3	17.0
USD/BRL	4.80	5.10	5.70
USD/MXN	19.00	20.50	22.50

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
Short 5s on 2s5s10s	-21bp	2-Dec-22	Given the excessive number of rate cuts currently priced in, the technical setup, and strong data, we expect the 5y yield to increase relative to 2s and 10s.	Markets continue to price more rate cuts.
February 136/137/139 Bund put fly	33 cents	2-Dec-22	On a short horizon, i.e., four to six weeks, we think it would make sense to protect our structural long duration expressed through the EUR 5y5y swap with February put options on the Bund future as 10y Bund yield could return to its fair value or trade even a bit cheap going into the heavy January EGB supply.	The loss is limited to the invested premium, with a maximum profit at 137.
Pay EUR 2s5s10s swap (vs. 6m)	-20bp	2-Dec-22	As duration rallied quickly to ~75bp richer since early November and as it is approaching overbought territory on technicals and vis a vis our fair value model, we feel the need to hedge tactically our structural long position on EUR 5y5y in anticipation of a correction towards the 2% area on 10y Bund.	Sharp flattening of white/reds on more dovish ECB rhetoric.
10s30s flatteners in Spain vs. France	25bp	2-Dec-22	All in all, we think that, from an RV perspective, in anticipation of Jan 2023 supply, the current levels of the box offer an attractive proposition.	Flattening of Bunds 10s30s, which would lead to a steepening in the 10s30s SP/FR box and Spanish issuance being more skewed towards the very long end as we enter January 2023.
JGB 7s30s ASW box flattener	43bp	18-Nov-22	With US interest rates and USD/JPY set to fall as inflation cools and the Fed likely nears an end to its rate hike cycle, we believe the positioning for BoJ policy adjustments is likely to be unwound in the super-long sector of the JGB market, and the 10y sector of the TONA OIS market, thereby flattening the JGB ASW curve in 2023.	The main risk is that of 30y JGB ASW underperforming if life insurers and pension funds for some reason opt to remain on the sidelines even as overseas bond markets start rallying.
2s10s BTP flatteners vs. Bund	133bp	18-Nov-22	The German curve should gradually re-steepen as we approach the end of the ECB's tightening cycle, while the positive assessment for BTPs should spur buying flows on the 10y point. Furthermore, the 2y point on the BTP curve is approaching extremely rich levels, and the 2s10s box is currently too steep against the level of 10y BTP/Bund spread relative to history.	A longer ECB hiking cycle delays the re-steepening of the German curve.
Sell 3m10y ATMF straddles vs. buy ATMF +/- 25bp strangles	21bp	4-Nov-22	We look to position for US rates to trade in a range and take advantage of elevated volatility.	Rates break their recent range.
Conditional Bund ASW tightener (Jan 138 Bund calls vs. 2.965% receiver swaptions)	0 cent	4-Nov-22	We see the Bund ASW tightening on the back of early TLTRO parameters and the implementation of QT with PEPP flexibility in 2023, which would be supportive for BTPs and for a cheaper German repo.	A risk-off rally with the future rallying above the 138 strike and the Bund ASW widening on a flight to quality.
Buy OATei27 BE	274bp	31-Oct-22	Strong upcoming inflation prints, positioning, and cheap valuations argue for long 5y breakeven positions.	The main risk to the trade is a softening of inflation prints, for example, due to lower energy commodities, that would make front-end break-evens cheapen.

JGB 20s40s flattener	57.5bp	28-Oct-22	We see the very long end to be gradually supported by Japanese lifers, while we see 20y JGBs continuing to lag without the demand from the banking community.	Lifers still show reluctance to purchase long end JGBs.
Receive Dec '23 vs. Feb '23 MPC	60bp	28-Oct-22	The market has priced out "emergency hikes" with significant receiving in the first three MPC meetings. While this is sensible from a positioning point of view, it has created an unusually steep money market slope. In our view, the faster the BoE proceeds with hikes in the near term, the shorter the length of the tightening cycle.	A slow hiking cycle results in BoE hikes skewed to the latter part of 2023.
Receive EUR 5y5y	3.32%	24-Oct-22	We think European rates have reached their peak, and the macro outlook and valuations are supportive for entering into long duration expressions.	The continuation of the recent sell-off due to higher inflation prospects and better-than-expected growth data require the ECB to deliver more hikes than what is currently priced or, alternatively, that the move lower in outright duration is completely offset by a steeper EUR 5s10s curve.
Short 2y BTP ASW	-20.8bp	19-Oct-22	We expect the changes to TLTRO announced at the ECB October meeting to continue to weigh on the front end of the BTP curve.	A compression in €STR vs. DFR offsets the cheapening in the front end of the BTP curve.
Short Bobl ASW	109.5bp	14-Oct-22	The Bobl ASW remains rich vs. our model. Our view is also driven by other factors, such as the risk of potential changes on the remuneration of the excess liquidity or the TLTRO parameters, which should increase the risk of a compression move, in our opinion.	Further widening in peripheral spreads and higher equity volatility.
Receive GBP 2s5s10s (vs. SONIA)	25bp	4-Oct-22	The fly is too cheap vs. our models and recently the link between duration and the fly has been very low. Moreover, this dislocation is persistent even though other parts of the gilt curve have shown signs of normalisation.	Further paying at the 5y point, which could be attributed to mortgage flows.
Short UKT 1F 71 vs. 50y SONIA	-14.5bp	4-Oct-22	An environment of higher volatility should deliver cheaper spreads. Long positions in long-dated spreads are carry and balance sheet intensive trades. With this in mind, we suspect that more deleveraging from the LDI community is likely, with the reduction of long gilt positions in repo.	Substantial ultra-long gilt buying by the BoE in the last sessions of the temporary purchases could push ultra-long spreads richer.
Buy UKT 0S 33 versus 4Q 32 and 4H 34	11.5	9-Sep-22	QT kicks lead to sales of both UKT 4Q 32 and UKT 4H 34 relative to the UKT 0S 33, favouring the fly.	The continuation of high market volatility, which could keep the green gilt cheap.
Short SPGB Jan 27 vs. FTFR Feb 27	33bp	12-Aug-22	We think this is an interesting expression, considering that the spread is back to 2022 lows (ex late March, when investors were concerned with the outcome of the French elections).	A further richening of Spanish bonds, supported by domestic flows or a further tightening in peripheral risk more broadly.
Long UKT 1E 39 vs. UKT 0H 61	-23.2bp	22-Jul-22	We believe that the strength in the 30y sector may face headwinds, including increased supply and QE.	The continuation of acute market volatility, which could keep the curve distorted.
Long June 2023 FRA/€STR basis	19.7	20-May-22	The prospects of a further cheapening on iTraxx crossover and the June 23 TLTRO repayments should lead to a wider basis.	The announcement of another extension of 3y TLTROs and an extension of APP.

Currency and Foreign Exchange

TRADE	ENTRY LEVEL	ENTRY DATE	RATIONALE	RISKS
Short USD/CAD	1.345	2-Dec-22	We expect the BoC's 50bp hike in December to support CAD. CAD should advance against USD as global growth expectations rise, inflation eases in the US and abroad, and China takes measures to ease activity restrictions. Rising oil prices should also put downward pressure on USD/CAD.	The key risk to the trade is that inflation re-accelerates in core markets, boosting Fed policy expectations and supporting the USD.

TRADE	ENTRY LEVEL	ENTRY DATE	RATIONALE	RISKS
Long NZD/JPY	86.06	18-Nov-22	JPY is set to underperform other currencies given its status as a preferred "funding currency" within the G10 space and Japan's vulnerability to commodity-driven inflation. We expect NZD to gain broadly due to an earlier-than-expected China reopening and elevated terminal rate pricing.	JPY purchases by the MoF could limit the underperformance of JPY.
Long EUR/GBP	0.869	18-Nov-22	We see GBP as a key laggard in G10 in 2023, as the UK enters a prolonged recession. While the autumn budget was less austere in the near term than initially expected, the large amount of gilt issuance penciled in for FY 2023-24 (over £305bn) is worrying and may revive concerns about fiscal sustainability. More important, the UK's weak net international investment position leaves it reliant on foreign money, which should increasingly be demanding higher yields or a cheaper currency (or both) to fund its current account deficit. Unlike the UK, Europe has a wealth of domestic savings parked abroad, which we think could return home to help finance its current account deficit as local yields normalize.	The UK displays supply-led growth resilience, with household consumption remaining resilient and labor supply returning.
Long EUR/GBP 6m 0.90/0.95 call spread	1.1% P	16-Sep-22	While the eurozone and the UK are experiencing similar shocks, key differences point to a higher EUR/GBP. EUR may be more supported given 1) the eurozone has a large stock of liquid savings abroad; and 2) those savings are predominantly invested in fixed income assets and return differentials increasingly favor bringing capital back. In contrast, the UK continues to be reliant on capital imports, and investors may be more concerned about the real fiscal outlook in the UK than the eurozone. Should foreign capital prove unwilling to finance the UK's deficit, currency weakness would be needed.	UK growth improves and inflation falls, reducing stagflationary concerns in the UK.

Inflation-Linked Bonds

TRADE	ENTRY LEVEL	ENTRY DATE	RATIONALE	RISKS
Sell 10y10y EUR HICPx swap vs. 10y10y RPI swap	32bp	8-Dec-22	The 10y10y EUR HICPx swap is rich to our model-implied fair value, while the 10y10y RPI swap is cheaper now than at the peak of the LDI crisis. Given that we expect normalisation in long-dated RPI swaps and 10y10y EUR HICPx forward is so expensive, we combine our views into a cross-market trade.	The risk is a continuation of buying by euro area pension schemes at a time of low supply while the UK LDI community stays on the sidelines, pushing UK inflation forwards lower.
Buy 10y10y RPI swap	2.88%	8-Dec-22	We think there is enough discount already reflected in long-dated RPI swaps. Expect normalisation to follow once we approach the end of the BoE sales.	The risk to the view is a further cheapening of linkers and RPI swaps due to the ongoing unwinding of the BoE portfolio, especially if the BoE accelerates the pace of sales.
Short Feb52 BE vs. long 30y CPI Swap	10bp	1-Dec-22	We recommend investors position for cash to cheapen vs. swaps, as (1) positioning normalizes and (2) financial tightening increases the costs of cash positions.	Positioning takes longer to normalize than anticipated.
Buy IL28	-0.73%	18-Nov-22	As we move into 2023, growth is likely to slow down 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.

TRADE	ENTRY LEVEL	ENTRY DATE	RATIONALE	RISKS
Sell IL51 on ASW	-0.32%	18-Nov-22	The BOE is considering unwinding the temporary purchases in conventionals and linkers. This places a lid on how rich spreads can go. Moreover, pension buyout activity into year end typically leads to cheaper conventionals and linkers on ASW.	A scarcity of linkers into year-end along with reduced buyout activity that push linker ASW spreads richer.
Long JBI 24 or 26 vs. pay matched maturity swap	Level at the auction	4-Nov-22	JGBI BEI still remain cheap vs. what the model implied by energy prices, risk sentiment, and the level of CPI ex fresh food would suggest. The near-term inflation carry is also expected to be positive.	Significant worsening of risk sentiment, lower energy prices.
Long 6m6m ZCIS	3.62%	27-Oct-22	We see inflation being stickier and more persistent than current market pricing suggests. We believe that present levels represent an attractive entry point.	A shock to inflation results in CPI dropping faster than anticipated.

Short-Duration Strategy

TRADE	ENTRY LEVEL	ENTRY DATE	RATIONALE	RISKS
SFRM3Z4 steepener	-190bp	2-Dec-22	Current pricing too aggressive vs. Fed guidance to stay on hold for most of 2023 and needing clear evidence from both inflation prints and labor market that inflation is on the path to its long-term 2% goal.	Labor market and growth data deteriorates rapidly over coming months and inflation surprises further to the downside. Fed continues to provide balanced/dovish guidance and moves away from raise and hold approach.
Pay SOFR/TONA basis 1y1y	-68bp	18-Nov-22	Given our view for a Fed pause and the subsequent USD weakening/benign risk sentiment, we see investors focusing more on earning carry. From this context, the carry of short-end xccy basis remains particularly attractive.	Higher US inflation and the subsequent higher USD/risk-off sentiment leads to an unwinding of the carry trade.
Short 2y SOFR swap spread	8bp	21-Oct-22	In line with our neutral view on rates, we expect short-driven demand and less incentive to pay SOFR to help 2y SOFR swap spreads narrow over the coming months.	The market starts pricing a neutral rate significantly above 5%.

Interest Rate Derivatives

TRADE	ENTRY LEVEL	ENTRY DATE	RATIONALE	RISKS
Buy 20y JGB ASW vs. ESTR compound	78bp	13-May-22	This is a medium-term carry trade. EUR-denominated JGBs on the long end should provide attractive yield pickup vs. Bunds ASW with a matched maturity.	Significant widening of the JPY/EUR basis on the longer end on the back of a credit crunch; low demand for 20y JGB ASW from the banking community.

Exhibit 97: History of recommendations

Buy UKT 1E 39 versus UKT 0H 61

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
UKT 0 1/2 10/22/61	22-Oct-61	Buy UKT 0H 61 on ASW	13-May-22	1.84	28-Jul-22	2.407				GB00BMBL1D50
40y SONIA swap	5-May-24	Buy UKT 0H 61 on ASW	13-May-22	1.55	28-Jul-22	2.11				BPSWS40 Curncy
UKT 1E 39	31-Jan-39	Buy 1E 39 versus 4Q 32 and 1Q 51	20-Jul-22	0.58%	12-Aug-22	0.45%	0.38%	0.65%		GB00BLPK7334
UKT 1Q 51	31-Jul-51	Buy 1E 39 versus 4Q 32 and 1Q 51	20-Jul-22	0.58%	12-Aug-22	0.45%	0.38%	0.65%		GB00BLH38158
UKT 4Q 32	7-Jun-32	Buy 1E 39 versus 4Q 32 and 1Q 51	20-Jul-22	0.58%	12-Aug-22	0.45%	0.38%	0.65%		GB0004893086

Buy UKT 0S 33 versus UKT 4Q 32 and UKT 4H 34

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
UKT 1E 39	31-Jan-39	Buy 1E 39 versus 4Q 32 and 1Q 51	20-Jul-22	0.58%	12-Aug-22	0.45%	0.38%	0.65%		GB00BLPK7334
UKT 1Q 51	31-Jul-51	Buy 1E 39 versus 4Q 32 and 1Q 51	20-Jul-22	0.58%	12-Aug-22	0.45%	0.38%	0.65%		GB00BLH38158
UKT 4Q 32	7-Jun-32	Buy 1E 39 versus 4Q 32 and 1Q 51	20-Jul-22	0.58%	12-Aug-22	0.45%	0.38%	0.65%		GB0004893086

Receive 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
BPSW2 Curncy	10-Nov-23	GBP 2s10s steepener	19-Nov-21	1.12%	04-Feb-22	1.56%				BPSWS2 CMPL Curncy
BPSW10 Curncy	10-Nov-31	GBP 2s10s steepener	19-Nov-21	1.18%	04-Feb-22	1.34%				BPSWS10 CMPL Curncy
GBP SWAP (vs SONIA) 5Y	18-Feb-27	Pay GBP 2s5s10s Fly	18-Feb-22	0.01	20-May-22	2.13%				BPSWS5 Curncy
GBP SWAP (vs SONIA) 10Y	18-Feb-32	Pay GBP 2s5s10s Fly	18-Feb-22	0.02	20-May-22	1.94%				BPSWS10 Curncy
GBP SWAP (vs SONIA) 2Y	18-Feb-24	Pay GBP 2s5s10s Fly	18-Feb-22	0.02	20-May-22	2.25%				BPSWS2 Curncy
EUR Annual (vs 6M EURIBOR)	11-Mar-32	pay GBP 10y swap vs EUR 10y swap	11-Mar-22	0.01	29-Apr-22	0.0168				EUSA10 Curncy
GBP Swap OIS	11-Mar-32	pay GBP 10y swap vs EUR 10y swap	11-Mar-22	0.02	29-Apr-22	0.0189				BPSWS10 Curncy
Interest Rate Swap	10Y	Receive EUR 10yr vs. GBP 10yr	25-Mar-22	1%	10-May-22	1.96%				EUSA10 Curncy
Interest Rate Swap	10Y	Receive EUR 10yr vs. GBP 10yr	25-Mar-22	2%	10-May-22	2.04%				BPSWS10 Curncy
10y SONIA swap	5-May-32	GBP 2s10s swap steepener	05-May-22	1.86	14-Jul-22	2.28				BPSWS10 Curncy
2y SONIA swap	5-May-24	GBP 2s10s swap steepener	05-May-22	2.07	14-Jul-22	2.73				BPSWS2 Curncy
10y SONIA swap	10y	GBP 2s10s swap steepener	10-May-22	2.0	22-Jul-22	2.4				BPSWS10 Curncy
2y SONIA swap	2y	GBP 2s10s swap steepener	10-May-22	2.2	22-Jul-22	2.8				BPSWS2 Curncy

Sell UKT 1F 71 versus 50y Sonia

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
UKT 1Q 51	31-Jul-51	Buy UKT 1Q 51 vs UKT 1F 71	24-May-22	-0.23%	20-Jul-22	-0.15%				GB00BLH38158
UKT 1F 71	22-Oct-71	Buy UKT 1Q 51 vs UKT 1F 71	24-May-22	-0.23%	20-Jul-22	-0.15%				GB00BFMCN652
UKT 1 5/8 10/22/2071	22-Oct-71	Sell 50y Gilts on ASW (Sell UKT 1F 71 versus 50y Sonia)	14-Oct-22	7bp	13-Nov-22	33bp				GB00BFMCN652
BPSWS50 BGN Curncy	50yr	Sell 50y Gilts on ASW (Sell UKT 1F 71 versus 50y Sonia)	14-Oct-22	7bp	13-Nov-22	33bp				BPSWS50 BGN Curncy

Sell Bobl ASW

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
UBA Invoice Spread	10-Mar-22	Long 5y Bobl ASW vs BUXL ASW	25-Mar-22	54.80	08-Jul-22	53bp				UBAISP Index
Bobl Asset Swap	10-Mar-22	Long 5y Bobl ASW vs BUXL ASW	25-Mar-22	65.30	08-Jul-22	81bp				ASWABOBL Curncy

Conditional Bund ASW Tightener

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
EUR SPREAD RX1 V 6M	10-Sep-22	Conditional Bund ASW Widener	10-Jun-22	0	22-Jul-22	0.19				ASWABUND

Pay EUR 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
SPGB 0.1 04/30/31	30-Apr-31	Short Bono Apr 31 ASW	22-Oct-21	0.46%	14-Jan-22	0.53%				ES0000012H41
EUR Annual (vs 6m Euribor)	26-Oct-31	Short Bono Apr 31 ASW	22-Oct-21	0.29%	14-Jan-22	0.36%				EUSA10 Curncy
SPGB 1.3 10/31/2026	31-Oct-24	Short Bono Oct 2026 ASW	14-Jan-22	-0.27%	25-Mar-22	0.62%				ES00000128H5
EUR Annual (vs 6m Euribor)	20-Jan-32	Short Bono Oct 2026 ASW	14-Jan-22	0.36%	25-Mar-22	1.18%				EUSA10 Curncy
5y PLN IRS	8-Feb-27	Receive 5y PLN IRS vs. Pay 5y EUR IRS	08-Feb-22	3.50	21-Mar-22	3.8				PZSW5 Curncy
5y EUR IRS	8-Feb-27	Receive 5y PLN IRS vs. Pay 5y EUR IRS	08-Feb-22	3.50	21-Mar-22	3.8				EUSA5 Curncy
Interest Rate Swap	5Y	Receive PLN 5yr versus EUR 5yr	21-Feb-22	0.04	25-Mar-22	0.0528				PZSW5 Curncy
Interest Rate Swap	5Y	Receive PLN 5yr versus EUR 5yr	21-Feb-22	0.01	25-Mar-22	0.00807				EUSA5 Curncy
EUSA5 Curncy	8-Mar-27	EUR 5s30s swap flattener	04-Mar-22	39bp	13-May-22	1.32%				EUSA5 Curncy
EUSA30 Curncy	8-Mar-52	EUR 5s30s swap flattener	04-Mar-22	63bp	13-May-22	1.54%				EUSA30 Curncy
EUR Annual (vs 6M EURIBOR)	11-Mar-32	pay GBP 10y swap vs EUR 10y swap	11-Mar-22	0.01	29-Apr-22	0.0168				EUSA10 Curncy
GBP Swap OIS	11-Mar-32	pay GBP 10y swap vs EUR 10y swap	11-Mar-22	0.02	29-Apr-22	0.0189				BPSWS10 Curncy
Interest Rate Swap	10Y	Receive EUR 10yr vs. GBP 10yr	25-Mar-22	1%	10-May-22	1.96%				EUSA10 Curncy
Interest Rate Swap	10Y	Receive EUR 10yr vs. GBP 10yr	25-Mar-22	2%	10-May-22	2.04%				BPSWS10 Curncy
EUR Annual (vs 6M Euribor)	8-Apr-27	EUR 2s5s Steepeners	08-Apr-22	1.15	22-Apr-22	1.399				EUSA5 Curncy
EUR Annual (vs 6M Euribor)	8-Apr-24	EUR 2s5s Steepeners	08-Apr-22	0.68	22-Apr-22	0.89				EUSA5 Curncy
5y CZK IRS	13-May-27	Receive 5y CZK IRS vs. Pay 5y EUR IRS	13-May-22	4	22-Sep-22	2.6				CKSW5 Curncy
5y EUR IRS	13-May-27	Receive 5y CZK IRS vs. Pay 5y EUR IRS	13-May-22	4	22-Sep-22	2.6				EUSA5 Curncy
10y swap EUR 6M	7-Jun-32	EUR 10s30s swap flattener	03-Jun-22	1.8	17-Jun-22	2.44				EUSA10 Curncy
30y swap EUR 6M	7-Jun-52	EUR 10s30s swap flattener	03-Jun-22	1.91	17-Jun-22	2.15				EUSA30 curncy
EUSA5 Curncy	8-Jul-27	pay EUR 2s5s10s	08-Jul-22	1.74	19-Aug-22	1.85				EUSA5 Curncy
EUSA10 Curncy	8-Jul-32	pay EUR 2s5s10s	08-Jul-22	2.16	19-Aug-22	2.05				EUSA10 Curncy
EUSA2 Curncy	8-Jul-24	pay EUR 2s5s10s	08-Jul-22	1.30	19-Aug-22	1.69				EUSA2 Curncy
EUR V6m	22-Jul-32	EUR 10s30s steepeners	22-Jul-22	1.86%	16-Sep-22	2.58%				EUSA10 Curncy
EUR V6m	22-Jul-52	EUR 10s30s steepeners	22-Jul-22	1.41%	16-Sep-22	2.08%				EUSA30 Curncy
EUSA5 Curncy	5-Sep-27	pay EUR swap 2s5s10s	05-Sep-22	0.02	28-Sep-22	0.032				EUSA5 Curncy
EUSA2 Curncy	5-Sep-24	pay EUR swap 2s5s10s	05-Sep-22	0.02	28-Sep-22	0.0305				EUSA2 Curncy
EUSA10 Curncy	5-Sep-32	pay EUR swap 2s5s10s	05-Sep-22	0.02	28-Sep-22	0.0324				EUSA10 Curncy
5y PLN IRS	5-Oct-27	Receive 5y PLN IRS vs. Pay 5y EUR IRS	05-Oct-22	3.97	24-Oct-22	4.60				PZSW5 Curncy
5y EUR IRS	5-Oct-27	Receive 5y PLN IRS vs. Pay 5y EUR IRS	05-Oct-22	3.97	24-Oct-22	4.60				EUSA5 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/91fc5ba2-5a07-11ed-b9a5-7148f0740b41

Event Calendar

Exhibit 98: Risk Event Calendar

Date	Time (Ldn)	Ccy	Event	Ref. Period	Market	Previous
18-Dec	11:00	ILS	GDP (QoQ)	3Q P		2.1%
	20:00	NZD	Westpac Consumer Confidence Index	4Q		87.6
	21:30	NZD	Performance Services Index	Nov		57.4
19-Dec	01:10	JPY	BoJ Outright Bond Purchases 1-3y, 3-5y, 5-10y, 10-25y			
	04:00	MYR	Exports (YoY)	Nov	13.2%	15%
	08:00	EUR	ECB's Guindos spks			
	08:00	EUR	ECB's Simkus spks			
	08:00	EUR	Norges Bank's Wolden Bache spks			
	09:00	EUR	IFO Business Climate	Dec	87	86.3
	09:00	EUR	IFO Current Assessment	Dec	93.5	93.1
	09:00	EUR	IFO Expectations	Dec	82	80
	09:00	CHF	SNB Sight Deposits			542.3B
	10:00	EUR	Construction Output (MoM)	Oct		0.1%
	13:30	CAD	House Prices (MoM)	Nov		-1.51%
	13:30	CAD	Raw Materials Price Index (MoM)	Nov		1.25%
	15:00	USD	NAHB Housing Market Index	Dec	34	33
	16:00	COP	Economic Activity Index (YoY)	Oct	5.2%	4.2%
	21:45	NZD	Trade Balance	Nov		-1,696m
20-Dec	N/A	JPY	BoJ Rates Decision		-0.1%	-0.1%
	N/A	JPY	BoJ 10y Yield Target		0%	0%
	00:00	NZD	ANZ Business Confidence	Dec		-57.1
	00:30	AUD	RBA Minutes			
	01:15	CNY	1-Year Loan Prime Rate		3.65%	3.65%
	01:15	CNY	5-Year Loan Prime Rate		4.3%	4.3%
	07:00	EUR	German PPI (YoY)	Nov	29.7%	34.5%
	08:00	TWD	Export Orders (YoY)	Nov	-12.85%	-6.3%
	09:00	EUR	Euro-Area Current Account	Oct		-8.1B
	09:00	EUR	ECB's Kazimir spks			
	09:00	EUR	ECB's Muller spks			
	09:30	EUR	Italian Current Account Balance	Oct		-2,018.3m
	13:00	HUF	NBH Rates Decision		13%	13%
	13:30	USD	Housing Starts	Nov	1404k	1,425k
	13:30	USD	Housing Starts (MoM)	Nov	-1.5%	-4.2%
	13:30	CAD	Retail Sales (MoM)	Oct	1.5%	-0.5%
	15:00	EUR	Consumer Confidence	Dec P	-22.8	-23.9
	21:00	NZD	ANZ Consumer Confidence Index	Dec		80.7
	23:30	AUD	Westpac Leading Index (MoM)	Nov		-0.05%
21-Dec	00:00	KRW	First 20-Days Exports (YoY)	Dec		-16.7%
	02:00	NZD	Credit Card Spending (MoM)	Nov		1%
	06:00	JPY	Machine Tool Orders (YoY)	Nov F		-7.8%

Date	Time	Currency	Event	Period	Forecast	Previous
	07:00	GBP	Public Sector Net Borrowing	Nov		12.7B
	07:00	GBP	PSNB ex Interventions	Nov		13.5B
	07:00	EUR	German GfK Consumer Confidence	Jan	-38	-40.2
	08:00	SEK	Economic Tendency Survey	Dec		84.8
	08:00	SEK	Consumer Confidence	Dec		50.2
	08:00	SEK	Manufacturing Confidence	Dec		104.8
	08:00	CHF	M3 (YoY)	Nov		-0.19%
	11:00	GBP	CBI Reported Sales	Dec		-19
	12:00	MXN	GDP - Supply Demand (YoY)	3Q		4.8%
	13:30	USD	Current Account Balance	3Q	-221.95	-251.1
	13:30	CZK	CNB Rates Decision		7%	7%
	13:30	CAD	CPI (YoY)	Nov	6.5%	6.9%
	13:30	CAD	Core CPI - Common (YoY)	Nov		6.2%
	15:00	USD	Existing Home Sales	Nov	4.2m	4.43m
	15:00	USD	Consumer Confidence Index	Dec	101	100.2
	15:30	USD	EIA Crude Oil Inventories			1,0231k
	19:00	ARS	Economic Activity (YoY)	Oct		6.6%
	23:50	JPY	Japan MoF Weekly Security Flow			246.5B
22-Dec	05:00	JPY	Leading Index CI	Oct F		98.2
	05:00	JPY	Coincident Index	Oct F		100.8
	07:00	SEK	PPI (YoY)	Nov		18.7%
	07:00	GBP	Current Account Balance	3Q		-33.8B
	07:00	NOK	Unemployment Rate (AKU)	Oct		3.4%
	07:00	MYR	Foreign Reserves			109.7B
	07:00	GBP	GDP (QoQ)	3Q F	-0.2%	-0.2%
	07:00	SEK	Retail Sales (MoM)	Nov		-0.6%
	07:20	IDR	BI Rates Decision		5.5%	5.25%
	11:00	TRY	CBT Rates Decision		9%	9%
	12:00	MXN	Bi-Weekly CPI (2w/2w)			-0.11%
	13:30	USD	Chicago Fed Natural Activity Index	Nov		-0.05
	13:30	USD	GDP (QoQ)	3Q T	2.9%	2.9%
	13:30	USD	PCE Core (QoQ)	3Q T		4.6%
	13:30	USD	Initial Jobless Claims			211k
	15:00	USD	Leading Index	Nov	-0.4%	-0.8%
	16:00	USD	Kansas City Fed Manufacturing Activity	Dec		-6
	23:30	JPY	CPI (YoY)	Nov	3.9%	3.7%
	23:30	JPY	CPI Ex Fresh Food (YoY)	Nov	3.7%	3.6%
	23:30	JPY	CPI Ex Fresh Food, Energy (YoY)	Nov	2.8%	2.5%
	23:50	JPY	BOJ Minutes			
23-Dec	04:00	MYR	CPI (YoY)	Nov	3.9%	4%
	05:00	SGD	CPI (YoY)	Nov	6.5%	6.7%
	05:30	JPY	Nationwide Dept Sales (YoY)	Nov		11.4%
	05:30	EUR	Netherlands GDP (QoQ)	3Q F		-0.2%
	07:00	NOK	Credit Indicator Growth (YoY)	Nov		5.2%
	08:00	EUR	Spanish GDP (QoQ)	3Q F	0.2%	0.2%
	09:00	EUR	Italian Consumer Confidence Index	Dec		98.1
	09:00	EUR	Italian Business Confidence	Dec		102.5
	12:00	BRL	IPCA Inflation (MoM)	Dec	0.5%	0.53%

Date	Time	Currency	Event	Period	Forecast	Previous
	12:00	MXN	Economic Activity IGAE (YoY)	Oct		5.16%
	13:30	USD	Personal Income	Nov	0.2%	0.7%
	13:30	CAD	GDP (MoM)	Oct	0.1%	0.1%
	13:30	USD	Personal Spending	Nov	0.2%	0.8%
	13:30	USD	Durable Goods Orders	Nov P	-0.8%	1%
	13:30	USD	Durables Ex Transportation	Nov P	0%	0.5%
	13:30	USD	PCE Core (YoY)	Nov	4.6%	5%
	15:00	USD	Univ. of Michigan Confidence	Dec F	59.1	59.1
	15:00	USD	New Home Sales	Nov	600k	632k
	15:00	USD	New Home Sales (MoM)	Nov	-5.1%	7.5%
26-Dec	01:10	JPY	BoJ Outright Bond Purchases 3-5y, 5-10y, 10-25y, 25+y			
	09:00	CHF	SNB Sight Deposits			542.3B
	23:30	JPY	Unemployment Rate	Nov	2.6%	2.6%
	23:50	JPY	Retail Sales (YoY)	Nov		4.4%
	N/A	JPY	BoJ's Kuroda spks			
27-Dec	01:30	CNY	Industrial Profits YTD (YoY)	Nov		-3%
	05:00	JPY	Housing Starts (YoY)	Nov		-1.8%
	07:00	NOK	Retail Sales (MoM)	Nov		-0.3%
	13:30	USD	Wholesale Inventories (MoM)	Nov P		0.5%
	13:30	USD	Advance Goods Trade Balance	Nov	-96.9B	-98.8B
	14:00	USD	House Price Index (MoM)	Oct		0.1%
	14:00	USD	Case-Shiller Home Price Index (YoY)	Oct		10.65%
	15:00	USD	Richmond Fed Manufacturing Index	Dec		-9
	15:30	USD	Dallas Fed Manufacturing Activity	Dec		-14.4
	23:50	JPY	BOJ Summary of Opinions			
	23:50	JPY	Industrial Production (MoM)	Nov P	-0.3%	-3.2%
27 D-4 J	N/A	EUR	German Retail Sales (MoM)	Nov		-2.7%
28-Dec	07:00	SEK	Trade Balance	Nov		-9.5B
	07:00	SEK	Household Lending (YoY)	Nov		4.5%
	15:00	USD	Pending Home Sales (MoM)	Nov		-4.6%
28 D-3 J	N/A	GBP	Nationwide House Prices (MoM)	Dec		-1.4%
29-Dec	08:00	EUR	Spanish Retail Sales (YoY)	Nov		1%
	09:00	EUR	M3 (YoY)	Nov		5.1%
	13:30	USD	Initial Jobless Claims			211k
	16:00	USD	EIA Crude Oil Inventories			1,0231k
	23:00	KRW	CPI (YoY)	Dec	5.1%	5%
30-Dec	00:30	AUD	Private Sector Credit (MoM)	Nov	0.5%	0.56%
	07:30	THB	Exports (YoY)	Nov		-3.6%
	08:00	CHF	KOF Leading Indicator	Dec		89.5
	08:00	CHF	SNB FX Interventions	3Q		-0.005B
	08:00	EUR	Spanish CPI (YoY)	Dec P		6.8%
	09:00	NOK	Norges Bank Daily FX Purchases	Jan		1900m
	14:45	USD	Chicago PMI	Dec		37.2
	16:00	RUB	CPI (YoY)	Dec		11.98%
	16:00	RUB	GDP (YoY)	3Q F		-3.7%
31-Dec	01:30	CNY	Composite PMI	Dec		47.1
	01:30	CNY	Manufacturing PMI	Dec	47.8	48
	01:30	CNY	Non-manufacturing PMI	Dec		46.7

01-Jan	00:00	KRW	Exports (YoY)	Dec	-13%	-14%
1-9 J	N/A	COP	CPI (MoM)	Dec		0.77%
1-31 J	N/A	PEN	CPI (MoM)	Dec		0.52%
02-Jan	01:45	CNY	Caixin PMI Manufacturing	Dec		49.4
	07:30	SEK	Manufacturing PMI	Dec		46.6
	08:15	EUR	Spanish PMI Manufacturing	Dec		45.7
	08:45	EUR	Italian PMI Manufacturing	Dec		48.4
	08:50	EUR	French PMI Manufacturing	Dec F	48	48.9
	08:55	EUR	German PMI Manufacturing	Dec F	46.3	47.4
	09:00	NOK	Manufacturing PMI	Dec		51.2
	09:00	CHF	SNB Sight Deposits			542.3B
	09:00	EUR	PMI Manufacturing	Dec F	47.1	47.8
	14:00	ILS	BoI Rates Decision			3.25%
	22:00	AUD	PMI Manufacturing	Dec F		50.4
2-4 J	N/A	EUR	German Import Prices (YoY)	Nov		23.5%

Source: Morgan Stanley Research, Bloomberg

Government Bond Ratings

Exhibit 99: 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	STA																
	S&P		STA															
	Fitch	STA																
JPN	Moody					STA												
	S&P					STA												
	Fitch						STA											
UK	Moody				NEG													
	S&P			NEG														
	Fitch				NEG													
GER	Moody	STA																
	S&P	STA																
	Fitch	STA																
FRA	Moody			STA														
	S&P			NEG														
	Fitch			NEG														
AUT	Moody		STA															
	S&P		STA															
	Fitch		NEG															
NETH	Moody	STA																
	S&P	STA																
	Fitch	STA																
FIN	Moody		STA															
	S&P		STA															
	Fitch		STA															
BEL	Moody				STA													
	S&P			STA														
	Fitch				STA													
SPA	Moody								STA									
	S&P						STA											
	Fitch							STA										
ITA	Moody										NEG							
	S&P									STA								
	Fitch									STA								
IRE	Moody					POS												
	S&P				POS													
	Fitch				STA													
POR	Moody									STA								
	S&P								STA									
	Fitch								STA									
GRE	Moody													STA				
	S&P											STA						
	Fitch												POS					
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

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(as of November 30, 2022)

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Equal-weight/Hold	**1646**	**45%**	**327**	**47%**	**20%**	**732**	**48%**
Not-Rated/Hold	**3**	**0%**	**0**	**0%**	**0%**	**0**	**0%**
Underweight/Sell	**625**	**17%**	**77**	**11%**	**12%**	**216**	**14%**
TOTAL	**3,634**		**690**			**1541**	

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