

Global Rates Weekly

So near yet so far

In the US, too much banking risk remains in market pricing and elevated inflation suggests tighter policy. We maintain our view to be short the front end paired with steepeners. In Europe, intermediate-tenor yields are likely susceptible to data and ECB commentary. In Japan, risk remains skewed toward lower yields.

United States: Rates Strategy

We maintain our view that too much residual banking risk remains in market pricing. Further, elevated inflation suggests that the central scenario of the path of the policy rate should be higher. However, a debt limit impasse poses downside risks. We maintain our view to be short the front end, paired with steepeners.

United States: TIPS

Patterns in the noise?......12

We take a systematic look at performance following 5y TIPS auctions in recent years. We find modest evidence for 5y TIPS sector outperformance following offerings, especially in April since the new schedule was implemented. We continue to recommend TIIApr27 iota tighteners.

United States: Money Markets

Sponsored repo volumes have doubled since last September. Some of this has been interest rate and market positions-driven, but there are signs that participants other than money funds and primary dealers are becoming more active.

Derivatives Strategy

Options are underestimating the probability of a large sell-off; we recommend buying high-strike 6m1y payers, given that top-left vols are suffering from a supply overhang. In Eur, we recommend fading low-strike vols through a 1y1y 1x2 receiver spread. In US swap spreads, we outline factors that could tilt spreads tighter.

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FOCUS

Rates Research

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Inflation-Linked Research

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Euro Area: Rates Strategy
Looking through the noise
In the near term, intermediate-tenor euro yields are likely to remain at the mercy of dataflow
and ECB commentary, but we see medium-term potential for some move lower on moderating
inflation uncertainty and increasing growth risks. Elsewhere, we analyse prospects for re-
attainment of an investment grade rating by Greece.
Euro Area: Inflation-Linked Markets
That's far enough
We recommend taking profit in our long 1y1y HICPx trade as market pricing has nicely rebounded in recent weeks and we see two-sided risks to the inflation outlook. We also recommend being long the OAT€i26/29 real yield forward.
UK: Rates Strategy
May in play
The upside surprise in inflation has sparked a rapid and aggressive repricing of the front end.
For it to be sustained, headline inflation will need to continue to surprise and core inflation will
need to stay elevated. With the curve looking flat, any resteepening should be lead by GBP
5/30s.
Japan: Rates Strategy
Carry market with reduced expectations for policy revision 40 $$
Amid reduced expectations for BoJ policy revision, demand to invest for carry could surface
ahead of the Golden Week holidays. In our view, risk remains skewed toward lower yields. In RV
trades, we focus on JGB 2s5s7s butterflys, JGB 20s30s steepeners and superlong ASW longs as trades offering positive carry.
trades offering positive earry.
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United States: Rates Strategy

So near yet so far

We maintain our view that too much residual banking risk remains in market pricing. Further, elevated inflation suggests that the central scenario of the path of the policy rate should be higher. However, a debt limit impasse poses downside risks. We maintain our view to be short the front end, paired with steepeners.

US Treasuries sold off over the last week amid further signs of stability in the banking system. Figure 1 shows that 2y Treasuries sold off 20bp and the yield curve flattened. Price action was similar in other developed markets as well. Figure 2 shows financial sector spreads have also continued to tighten. As a result, markets have priced out some of the rate cuts, with the yearend expectation for the policy rate rising to 4.55% from 4.35% one week ago and 4.15% two weeks ago. Risk assets have been very well behaved, with VIX falling to around 17 and CDX IG spreads hovering near 75bp. Investors are becoming less worried about downside risks to the economy.

In the US, recent data have been mixed, leaving the economic outlook largely in the same place in our view. Core retail sales fell but surprised to the upside of pessimistic forecasts and more recent card payment data show a bounce in activity in April so far (Figure 3). On the housing front, building permits remain low but the NAHB index has bounced off the lows, which suggests housing activity is likely to increase, reducing the drag on activity (Figure 4). On the labor market front, initial claims have picked up, suggesting some cooling in the labor markets but the levels remain quite low. On an NSA basis, they are about 30K higher than the same period in 2019 and 2022, which is not alarming in our view. From a levels perspective, the labor market remains very tight as also evidenced by Atlanta Fed wage tracker ticking up to 6.4%. In all, the economy remains resilient in our view.

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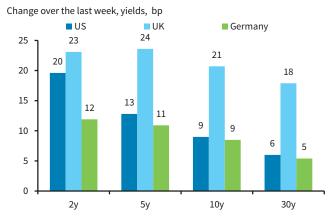
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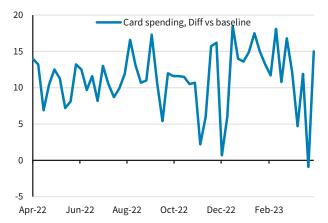
20 April 2023

FIGURE 1. US Treasuries have sold off led by the front end...



Source: Bloomberg, Barclays Research

FIGURE 3. Card spending have bounced back



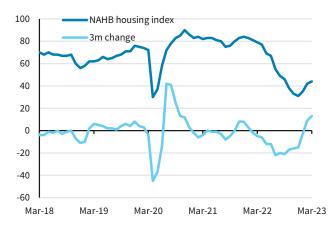
Source: Bloomberg, Barclays Research

FIGURE 2. ... as concerns about banks are subsiding



Source: Bloomberg, Barclays Research

FIGURE 4. NAHB housing index has risen from the lows



Source: Bloomberg, Barclays Research

Investors have been closely watching the data for signs of credit tightening and the recent released Beige Book does shed some light on that front. It summarizes comments from business contacts in each of the 12 Fed districts. 1 It covers broad sectors of the economy, and includes specific outreach to the banking and finance sectors. It is also a first glimpse at what Fed officials are hearing about credit tightening post-SVB.

Figure 5 shows the Beige Book discussion on credit conditions in April compared to March (pre-SVB), which overall indicates an uptick in mentions of credit tightening at several of the districts. For example, NY reported that while credit tightened in March it was "noticeably" tighter in April, and Dallas noted credit "tightened sharply" in April. That said, other districts did not report a tightening in credit, or that it had tightened "slightly" as it had the prior month. Still others reported contacts expected further tightening ahead due to bank stress.

¹During an interview in early March Chair Powell mentioned that "And one of the things the reserve banks are great at is all twelve of them have big operations where they talk to businesses and nonprofits, universities...And they bring that back to the FOMC meetings and they talk about what they're seeing... And I think hearing the stories that people tell, it does help me to sort of, you know, assess what's going on out there."

FIGURE 5. The Beige Book does not point to an imminent credit crunch

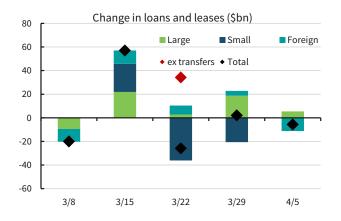
Beige Book Cr	edit Discussion					
March (Pre SVB)	April					
(Bos) Credit conditions tightened further, for example, as construction loans faced increased capital requirements.	(Bos)several contacts predicted that lending to the commercial real estate sector would become more conservative in response to heightened concerns about banking risks					
(NY) Credit standards continued to tighten on all loan types except consumer loans.	(NY) Credit standards tightened noticeably for all loan types, and loan spreads continued to narrow.					
(Chi) Business loan quality edged down, and standards tightened slightly Consumer loan standards tightened slightly.	(Chi) Business loan quality was stable, and contacts did not report change in lending standardsConsumer lending standards tightened slightly					
(Dallas) Loan price growth moderated somewhat but remained highly elevated, and credit standards and terms continued to tighten.	(Dallas) Credit standards and terms tightened sharply, and marked increases in loan pricing were noted.					
(SF) institutions continued to tighten lending standards in response to increased economic uncertainty.	(SF) Reports indicated that existing and planned projects across sectors were delayed or cancelled due to higher funding costs, heightened uncertainty, and more limited access to credit.					
	(Clev) a small share of contacts reported a modest decrease in credit availability.					
	(KC) most contacts noted that lending for commercial real estate development is almost completely unavailableAfter tightening credit standards over the past several weeks, many contacts reported expectations for further tightening					

Source: Federal Reserve, Barclays Research

Figures 6 show actual lending (based on the H8 data) since SVB and as one can see, there has been no decline in outstanding loans so far. If anything, banks have continued to make loans, particularly large domestic banks. Figure 7 shows that bank deposits have been rising over the past two weeks.

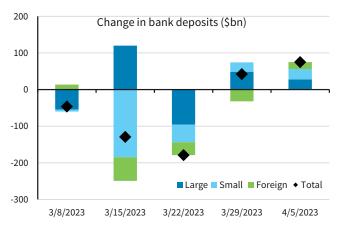
Overall, this suggests the post-SVB credit tightening has been modest and not widespread thus far. While there is still likely more to come, it also suggests that concerns over an imminent credit crunch are overblown. Some tightening in lending standards is to be expected, which will likely be a drag on activity, labor market and inflation over the coming quarters. We estimate that further tightening in lending standards could subtract 0.25-0.5pp from growth, which is roughly equivalent to a similar amount in hikes. However, with the starting low level of unemployment and high level of inflation, this mainly works towards paring back the right tail of aggressive further hikes rather than increasing the left tail of cuts, in our view.

FIGURE 6. H8 data suggests domestic banks have continued to make loans...



Source: Federal Reserve, Barclays Research

FIGURE 7. ...and deposits have increased



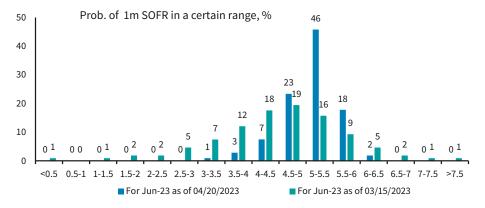
Source: Federal Reserve, Barclays Research

Front-end pricing: too much residual risk remains

Markets are not oblivious to these developments and have indeed pared back the left tail of imminent cuts, but they continue to price large cuts by year end. Figures 8 and 9 show the distribution of 1m SOFR rates for the end of Q2 23 and Q4 23 as of Mar 15 (peak of crisis) and latest.

On March 15, markets were putting an almost 20% probability of the policy rate being below 3.5% by the June meeting itself, which would have amounted to a greater than 100bp rate cut from the then spot rate of 4.5-4.75%. Currently, those odds are close to 0. The modal expectation is for the policy rate being 5-5.5% (which would amount to 1 or 2 rate hikes from today) by the June meeting, with modest odds on either side. This distribution seems quite reasonable to us, though it can narrow further from both sides. The odds of no more hikes from today (or cuts) is very low in our view. Similarly, the odds of more than 50bp in cumulative hikes by the June meeting are also very low in our view as the Fed is unlikely to accelerate the pace of hikes so soon.

FIGURE 8. Markets have appropriately pared back the left tail of aggressive cuts by the June meeting...

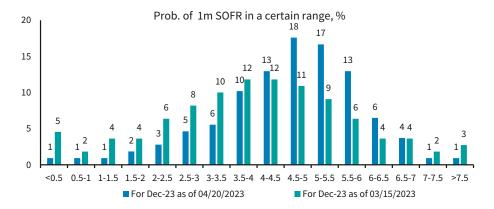


Source: Barclays Research

However, as we look to year end, markets continue to put a high weight on aggressive rate cuts. While the uncertainty further out is no doubt higher, justifying a wider distribution, it is tilted too much to the left side, in our view. Markets are assigning almost 30% probability to the Fed cutting below 4% (or more than 100bp cuts) by year end. The risk of a credit crunch has

transformed into a garden variety credit tightening in our view, which does not justify rate cuts this year, given the starting state of the US economy. Hence, we believe these odds are too high.

FIGURE 9. ...but they continue to price in high odds of aggressive cuts by year end



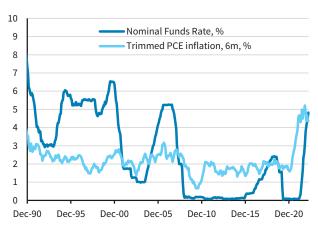
Source: Barclays Research

One might also wonder if the distribution should be centered around 5-5.5% rather than 4.5-5%. While there has been some slowing in the economy, inflation remains far too high and for all the talk about the aggressive hiking cycle so far, the real policy rate has only just turned positive.

Figure 10 and 11 show the nominal fed funds rate, core PCE inflation (using Dallas 6m trimmed measure) and the real fed funds rate. As can be seen, with a policy rate of 4.83%, and inflation of 4.36%, the real rate is just about 0.5%, roughly in line with the Fed's neutral rate estimate of 0.5%. While inflation is likely to fall from current levels, it could stay close to 4% given stickiness in core services ex-housing and an increase in inflation in the core goods category. Inflation has continued to surprise to the upside and could still do so; just in the past three months, core PCE inflation expectations for the current year-end have risen from 3% to 3.5% and we would not be surprised by further revisions higher. Hence, one more hike to 5.1% or a real rate of 1% is unlikely to be (or seen as) sufficiently restrictive with inflation roughly 2pp above the Fed's target and labor markets still quite tight.

We therefore believe the markets should put more weight on a scenario where the Fed continues the hiking cycle beyond the May meeting, potentially hiking at say the June and Sep meetings (skipping July if the debt limit uncertainty looms large).

FIGURE 10. The nominal policy rate has just caught up with inflation...



Source: Federal Reserve, Barclays Research

FIGURE 11. ...and the real rate is only modestly positive, which is not sufficiently restrictive in our view



Source: Federal Reserve, Barclays Research

Trade portfolio update: Remain short the front end, paired with forward steepeners

We have been arguing for the past month that the front end has been too pessimistic and have been recommending to short SFRZ3 (entry 3.90%, current 4.50%) paired with 1yf 2s10s curve steepeners (entry 0bp, current -13bp) (weight 0.75:1). The latter is a cheap hedge for a sudden economic stop.

While the market have reassessed the year-end fed funds rate level higher by almost 60bp since our trade initiation, we maintain the trade. As discussed above, risks to front end rates are still skewed to the upside. While the money market curve should be somewhat inverted relative to terminal rate pricing as the balance of risk would be tilted to the downside, the terminal rate itself can move higher and the inversion should also be smaller in our view. The 5.1% terminal rate pricing looks low. Further, if the Fed does stop the hiking cycle at 5.1%, it is likely to remain on hold for longer as that rate is not high enough to put material downward pressure on inflation, in our view. Hence, the 50bp inversion that is priced by year-end not only looks high in absolute terms but also relative to the terminal rate that is priced in.

On the other hand, the flattening of the 1yf2s10s curve is likely to remain limited as markets are likely to continue to put some weight on a slowdown in 2024/2025 either due to the tightening of credit conditions or otherwise. Hence, in 1-2 year forwards, the path of hikes should not get revised higher relative to the long end. Should those rates rise, it would likely be either in response to a higher neutral rate assessment (if the economy stays strong) or higher term premium (if volatility rises). In either case, the forward curve is likely to mostly move up in parallel.

While the forward curve has flattened somewhat since our trade initiation, subtracting from the p/l of the short SFRz3 leg, the paired trade has actually delivered better performance so far than an outright short trade. Figure 12 compares the daily performance of the paired trade against being outright short SFRz3. As can be seen, on large sell-offs, the trade has behaved like an outright short position but on large rallies, the losses have been capped. Given the uncertain backdrop, particularly as attention shifts to the debt limit (see below) we believe it remains prudent to have forward starting steepeners as a hedge to the outright short front-end trade.

FIGURE 12. Being short the front-end pared with foward steepeners has performed better

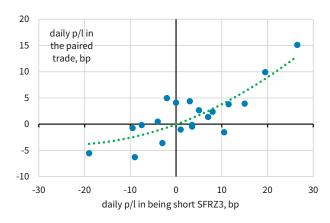
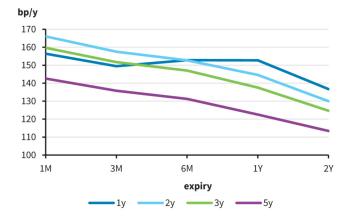


FIGURE 13. Vol surface in various tenors



Source: Bloomberg, Barclays Research Source: Barclays Research

Buy 6m*1y high strike (5%) payers

We believe a short duration view is better expressed in conditional form, via 6m*1y high strike (5%) payers. As concerns around the banking crisis have faded, volatility has declined. At the same time, the market remains more concerned that a fairly large amount of downside risk remains, resulting in low-strike vols being quite a bit richer than higher strikes and a steep

inversion of the forward curve. Forward 6m1y rates at around 4.15% are still lower than at any time since September 2022, despite spot 1y rates having recovered to their typical level over this period. Further, the most likely scenario implied by the option distribution for 6m1y rates is between 4.5% and 5% and the cumulative probability of 1y rates being more than 5% after six months is less than 25%, and that appear to us to be too low.

There are some other advantages offered by the trade. 1) A longer time horizon (6m, as opposed to 3m) allows potential higher rate scenarios more time to materialize; 2) The forward 6m1y rate is much lower than 3m1y, resulting in the rate rolling up if cuts keep getting pushed out further in time. The delta gains from roll up are high enough that this could offset most of the first three months' decay from holding the option; 3) Vol is structurally cheap in this part of the surface because of a recent deluge of supply (Figure 13; for more details please see the derivatives strategy section). A 5% strike 6m1y payer has a break-even of around 5.1%. While 1y rates above this level are not a base case view of ours, all it would take is for data to recover, leading to the hiking cycle being extended for a few months, and for the market to price out some of the subsequent cuts.

Debt limit impasse poses downside risk to yields

In the near term, as rhetoric heats up around the debt limit, there is some downside risk to the outright level of yields. News reports indicate that House Republicans have proposed a \$1.5 trillion increase in debt limit up to March 2024, paired with significant spending cuts, which not surprisingly have been labeled very aggressive by the White House². In addition, while incoming tax receipts suggest that the x-date is still likely to be in late July/early August, the possibility of an earlier deadline in June can not be discounted, particularly if the Treasury is too cautious about low cash levels. This suggests there is a possibility that the Congress may have less time on hand to deal with the debt limit impasse. While this increases the odds of a short-term extension, it might also negatively affect sentiment.

Markets remain uncertain about the precise timing of the x-date as evidenced by bills maturing all the way from mid-June to August end trading cheap, though the cheapest ones are maturing in August (Figure 14). The US Sovereign CDS spread has also been widening recently, suggesting investors are getting worried (Figure 15). While the implied default probability is still low in a historical context, the increase still reflects rising concerns (see here).

We believe that if the debt limit is not raised in time, the bigger issue for bond investors is the fiscal contraction that would need to be put in place, rather than a debt default. In 2011, the Treasury and Fed officials had devised a delayed payment schedule in the event the debt limit was not raised in time, which would avoid a default on US Treasury debt. Briefly, the Treasury would delay other payments to ensure that principal and interest payments on Treasury securities continued to be made on time. While this has not been put to the test, it suggests that debt payments should not be affected.

However, since the Treasury would not be able to net issue debt, all outlays would need to be made out of incoming revenue. The budget deficit would thus be eliminated, even if for a short period of time. In July and August last year, outlays exceeded revenues by about \$175bn and \$225bn respectively (excluding debt settlements cash flows). The latter is about 10% of GDP in annualized term. This should be a bigger issue for bond investors in our view and could lead to a decline in yields.

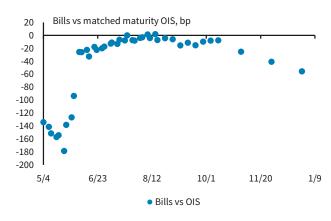
Most likely the debt limit will be raised in time, but the question will be what such a resolution means for the outlook for fiscal policy. While the Republicans' position is likely a starting point in the negotiation, large spending cuts would be seen as adversely affecting the growth outlook.

 $^{{}^2}https://www.cbsnews.com/minnesota/news/debt-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-limit-save-grow-act/self-ceiling-house-republicans-bill-ceiling-house-republicans-bi$

This would lead to lower Treasury yields in the intermediate sector onward. For instance, In 2011, Treasury yields fell sharply amid risk off following the budget sequester.

We therefore see the outlook remaining uncertain, which justifies having cheap protection for left hand side tail risks, via forward starting steepeners.

FIGURE 14. Bills maturing in June-August are trading cheap



Source: Bloomberg, Barclays Research

FIGURE 15. US sovereign CDS spread has been widening recently



Source: Bloomberg, Barclays Research

Market views

Duration

- Incoming economic data suggest some slowing of the momentum in the economy, but we
 believe it is slowing from a position of strength and is likely growing at trend, if not above.
 The labor market remains solid with a low unemployment rate, and inflation is still
 elevated. A potential debt limit impasse poses downside risk to the economic outlook.
- Recent data suggest that banking risks are receding. Deposit flight has stabilized, and banks
 have continued to make loans, suggesting any potential credit crunch would be limited and
 the economy is likely to prove resilient to the tightening of credit conditions. We believe
 almost the entire distribution of the policy rate outlook over the next year needs to shift
 higher.
- We maintain our recommendation to short SFRZ3 (entry: 3.90% current 4.50%) paired with 1yf 2s10s curve steepeners (entry: 0bp current -13bp)(weight 0.75:1). Flattening of the forward curve should be limited, making forward steepeners a cheap hedge for left hand side tail risks.

Curve/curvature

We maintain our recommendation to pay the 5s10s30s SOFR fly (entry 7bp, current 2bp), as
it is trading rich after accounting for the fundamental drivers of the term premium, including
rate volatility.

Swap spreads

- In light of the banking upheaval in March, increased scrutiny on banks' AFS holdings could
 cause them to take a more precautionary stance, including curtailing lending and risktaking and tightening their balance sheets, which would argue for tighter spreads.
- Long-end spreads have tightened as balance sheet and liquidity conditions have worsened, and along with a bleak deficit outlook and the debt ceiling impasse argue for tighter spreads.

Volatility

- We recommend buying a 6m1y 5% strike payer to benefit from the options market underestimating the probability of another large front-end sell-off if the hiking cycle gets prolonged.
- We continue to recommend buying cheap long-dated low-strike vol by buying 3y10y ATM-100 receivers versus selling 6m10y ATM-50 receivers.
- We maintain a 10y20y + 3m10y vs 3m30y option triangle to benefit from a short gamma/long vega bias on the long end.



United States: TIPS

Patterns in the noise?

We take a systematic look at performance following 5y TIPS auctions in recent years. We find modest evidence for 5y TIPS sector outperformance following offerings, especially in April since the new schedule was implemented. We continue to recommend TIIApr27 iota tighteners.

In the run-up to this week's \$21bn new-issue 5y TIPS auction, the TIIOct27s (the soon-to-be off-the-run) have rallied slightly in breakeven (1bp, carry-adjusted, as of Wednesday's close) but sold off modestly in real yield (3bp) while the iota widened marginally, all on a 1w change basis. A similar pattern is apparent for both the off the run (TIIApr27s) and the off-off, etc. This price action was only partially consistent with building in a concession for one of the largest TIPS supply events in history, though the lack of an outsized repricing in the lead-up to the issuance is somewhat unsurprising given how well-telegraphed the auction details have been.

At the offering itself, the supply met mixed demand. Although it stopped through WI levels by 0.75bp, the bid-to-cover ratio was the lowest in eight years and primary dealers took down more than 10% of the auction for the first time since December 2021 (though admittedly, 10% is still a small share in historical perspective).

Where do we go from here?

With the auction now in the rear view mirror, we looked historically for whether there has been consistent systematic price performance following 5y TIPS auctions. There are many different ways that once could slice this analysis, but, from our perspective, it made most sense to consider performance of both the on-the-run 5y and off-the-run 5y (at time of auction, so in the current instance that would be the TIIOct27 and TIIApr27) in real yield, breakeven, and iota, as well as the 5y5y real yield and breakeven (built using the on-the-runs). We also then split the sample into a few different measurement windows (back to 2013, since 2019 — when the 5y auction schedule changed, new issue auctions, reopenings, and month-specific). Of course, any interpretation of these findings should be taken in the context of the extremely small sample size, which further underscores the risk of over-interpreting noise as a signal. Finally, we focus our analysis on price action in the five trading days following the auction; if we extend the window further, we would frequently cover month-end, complicating any interpretation.

In short, our analysis falls short of providing any massive "slam dunk" systematic takeaways — especially on a liquidity-adjusted basis — but does offer a modest signal that the 5y sector has consistently richened after new issue auctions since 2019. For context, in real yield, the on-the-run has rallied 88% of the time in the five trading days post auction since the new schedule was implemented in 2019 (and 62% of the time since 2013). This has translated to a 8.3bp rally, on average, after new issue auctions since 2019. Following April 5y auctions specifically, both the on-the-runs and off-the-runs have rallied 100% of the time since the auction schedule shifted; though admittedly that is only a sample size of four thus far.

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20 April 2023

Moreover, in iota, after April auctions in the new schedule, the on-the-run and off-the-run have tightened by an average of 1.4bp and 1.9bp, respectively, while breakevens, in turn, have gained 5.4bp and 12.9bp. At first glance, there appears to be something here.

Of course, just because price action has been something *on average* does not mean that in a volatility-adjusted there is any signal among the noise. In an attempt to control for the noise, we generated a t-statistic for post-auction price performance by scaling the average change by the corresponding standard deviation. Doing so confirms our prior belief that **most observed patterns are not statistically significant** (most t-stats in Figure 1 are well below levels traditionally associated with strong significance), though, to be fair, the t-stats for new issue and April auctions are non-negligible.

Putting these findings together, we see additional support for holding our recommendation to position for a tighter iota in the TIIApr27 (enter at 19.7bp, latest 19.8bp), as it was originally implemented in anticipation of seasonal TIPS fund inflows, which have potentially largely run their course (Putting the fun back in fund flows, March 10, 2023).

FIGURE 1. Price performance of various metrics five trading days after a 5y TIPS auction

		Full sample	Since 2019	New issue	Reopening	Apr	Jun	Oct	Dec
On-the-run	Real yield (avg chg, bp)	-2.53	-3.72	-8.26	0.83	-8.32	-0.25	-8.20	1.90
	% higher	38%	31%	13%	50%	0%	50%	25%	50%
	tstat	-0.27	-0.37	-0.73	0.14	-4.79	-0.03	-0.51	0.44
	Breakeven (avg chg, bp)	1.60	1.09	1.72	0.46	5.37	-2.33	-1.94	3.26
	% higher	68%	63%	63%	63%	75%	50%	50%	75%
	tstat	0.28	0.15	0.26	0.06	0.87	-0.25	-0.39	0.68
	lota	-0.31	-1.19	-1.37	-1.00	-1.79	-1.49	-0.95	-0.52
	% wider	47%	25%	25%	25%	25%	25%	25%	25%
	tstat	-0.18	-0.73	-0.87	-0.61	-1.30	-0.74	-0.58	-0.56
Off-the-run	Real yield (avg chg, bp)	-3.19	-5.04	-11.44	1.37	-15.37	0.93	-7.51	1.80
	% higher	38%	31%	13%	50%	0%	50%	25%	50%
	tstat	-0.29	-0.40	-0.82	0.22	-1.38	0.13	-0.49	0.38
	Breakeven (avg chg, bp)	2.89	2.49	5.26	-0.28	12.87	-3.73	-2.35	3.16
	% higher	71%	69%	75%	63%	100%	50%	50%	75%
	tstat	0.33	0.22	0.41	-0.03	0.93	-0.36	-0.44	0.70
	lota	-0.93	-1.23	-1.92	-0.54	-3.18	-0.41	-0.67	-0.66
	% wider	41%	44%	38%	50%	25%	75%	50%	25%
	tstat	-0.42	-0.54	-0.71	-0.35	-1.07	-0.20	-0.41	-1.01
5y5y	Real yield (avg chg, bp)	-1.61	-0.61	-2.30	1.08	2.89	-1.48	-7.49	3.63
	% higher	44%	50%	38%	63%	75%	50%	0%	75%
	tstat	-0.21	-0.08	-0.31	0.16	0.64	-0.19	-1.22	0.99
	Breakeven (avg chg, bp)	1.88	0.22	-0.11	0.55	1.82	-2.85	-2.03	3.95
	% higher	68%	56%	50%	63%	75%	50%	25%	75%
	tstat	0.29	0.03	-0.02	0.07	0.36	-0.34	-0.33	1.02

Source: Barclays Research

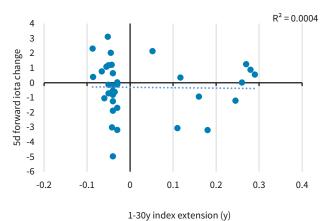
We also looked at whether there was any correlation between auction tails and post-auction performance, and/or that month's duration extension of the 1-30y TIPS index. In general, the quick-and-dirty answer is "not really," especially for auction tails. For duration extension, however, the April extensions are normally meaningfully larger than other 5y TIPS auction months, potentially helping to explain some of that month's specific outperformance.

Going forward, we intend to incorporate similar analysis surrounding other risk events (auctions, data releases, monetary policy events, etc).

FIGURE 2. 5y TIPS auction tail vs post-auction on-the-run iota change

 $R^2 = 0.0878$ 4 3 2 5d forward iota change 1 0 -1 -2 -3 -4 -5 -6 8 -6 -4 -2 2 6 Auction tail (bp)

FIGURE 3. 1-30y TIPS index duration extension vs post-auction onthe-run iota change



Source: Barclays Research Source: Barclays Research



United States: Money Markets

Sponsored reporises

Sponsored repo volumes have doubled since last September. Some of this has been interest rate and market positions-driven, but there are signs that participants other than money funds and primary dealers are becoming more active.

Previously published in Sponsored repo rises, April 19, 2023

- Sponsored repo volumes have doubled since last fall. Demand has risen as cleared bilateral rates have cheapened relative the Fed's interest rate floor.
- Money funds are shifting more of their Treasury repo holdings outside the Fed's RRP, as
 it has become easier to do tri-party transactions through sponsored repo.
- Currently, sponsored repo accounts for less than 5% of total gov-only fund balances.
 Higher funding rates and tri-party settlement may mean that gov-only money funds increase this to 10%, or over \$430bn.
- But even with their recent rapid growth, money funds still account for 50% of the cash lent in the sponsored repo market. We think the rest might be coming from mutual funds.
- Primary dealer activity in sponsored repo has also increased, but their market share
 has slipped to 17%, from 27% in 2022. Instead, non-dealer custody banks have
 increased their intermediation.
- Data coverage gaps mean that we have little sense for the collateral, maturity, and settlement terms in sponsored repo. As as result, it is difficult to know what portion of the overall repo market is already centrally cleared ahead of the SEC's planned rule changes.

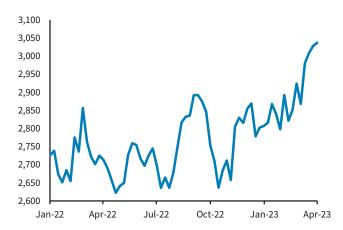
Gaining popularity

Overall repo volumes (repo and reverses) have risen since September (Figure 1). But while overall volume is about 10% higher, sponsored repo activity has grown even faster. Indeed, since last September, the DTCC reports that sponsored repo volumes have roughly doubled to just over \$600bn (Figure 2).

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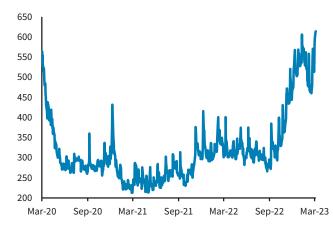
Joseph Abate +1 212 412 7459 joseph.abate@barclays.com

FIGURE 1. Repo activity (\$bn)



Note: Repo and reverses Source: Federal Reserve, Barclays Research

FIGURE 2. Sponsored repo activity (\$bn)



Note: Repo and reverses Source: Federal Reserve, Barclays Research

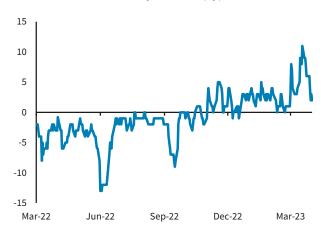
Cleared bilateral repo rates have cheapened...

We think the primary reason for the increase in sponsored repo volumes has been a shift in market positioning. With the Fed near the end of its tightening cycle, the demand to finance long positions has risen. In turn, this has pushed cleared bilateral repo rates above the RRP rate. Until last September, the volume-weighted median cleared bilateral rate traded several basis points below the RRP rate, but as demand for funding has risen, the rate has moved higher - cheapening even further in March (Figure 3).

...and dealer balance sheet capacity has gotten scarcer

Likewise, as the demand for financing has increased, dealers' balance sheet capacity has become somewhat scarcer. Dealer trades that intermediate cash raised from money funds with collateral pledged from hedge funds are not nettable under standard accounting rules. The crowding on dealer balance sheets caused by repo intermediation has been compounded by their own (larger) inventories of securities. Dealer Treasury holdings have risen 33% since the beginning of the year, or nearly \$60bn, to \$215bn in early April. Because sponsored repo is centrally cleared, the longs and shorts all face the same counterparty (the FICC). This makes it much easier to net them down to preserve balance sheet capacity. We think the ease and convenience of multilateral netting accounts for the increase in dealer sponsored repo activity even outside the normal quarter-end spikes (Figure 4).

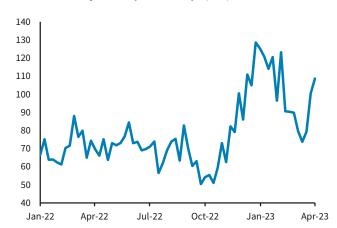
FIGURE 3. Cleared bilateral repo less RRP (bp)



Note: Volume-weighted median rate.

Source: Barclays Research, Federal Reserve

FIGURE 4. Primary dealer sponsored repo (\$bn)



Note: The Fed's data are reported weekly, so quarter-end spikes are more visible in the DTCC's data

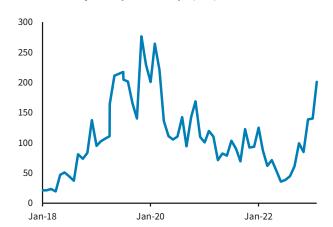
Source: Federal Reserve, Barclays Research

Money fund demand

Money fund interest in repo has picked up as cleared bilateral repo rates have moved above the RRP rate. Non-RRP Treasury repo holdings at money funds have nearly doubled since last fall, reaching \$480bn at the end of March, but their *sponsored* repo lending has increased even faster - rising from less than \$45bn in September to \$200bn in March. This is below the \$280bn reached in December 2019, when a similar combination of strong funding demand and high repo rates pushed money funds' cash lending in sponsored repo sharply higher (Figure 5).

However, at the time, sponsored repo used delivery-versus-payment settlement. Money funds generally prefer tri-party settlement because it is operationally easier for them to have cash and collateral exchanged in a box on the balance sheet of the tri-party clearing bank. The FICC recently changed the settlement mechanics to allow tri-party in sponsored repo. As a result, we suspect that part of the recent increase in money fund demand has been driven by the ability to settle tri-party trades. Indeed, money funds do about 42% of their non-RRP repo through sponsors (Figure 6). As of March, they supplied 50% of the cash lent via sponsored repo.

FIGURE 5. Money fund sponsored repo (\$bn)



Source: Crane's Data, Barclays Research

FIGURE 6. Sponsored repo share (%)



Note: Sponsored share of money funds' non-RRP repo holdings. Source: DTCC, Crane's Data, Barclays Research

This raises two key questions. First, is there any limit on the ability of money funds to participate in sponsored repo? And second, who is participating in this market besides money funds?

Demand limits

Is there a limit on how much sponsored repo money funds can do?

Money funds cannot hold more than 5% of their portfolios in the securities of a single Tier 1 issuer. But how this applies to the FICC and sponsored repo is a bit murky.

Under the terms of the sponsorship agreement, if the sponsor's client defaults, the sponsor is responsible for completing all the sponsored trades it has guaranteed. The FICC and the sponsoring firm's counterparties are protected. But what happens if the sponsor fails? In that case, the FICC can either complete or close out the (sponsored) client's trades. In a closeout, the FICC calculates the liquidation value of the client's net positions (that is, the difference between its repo longs and shorts). The liquidation value is compared with the amount that the client was due to receive. The FICC will pay any surplus to the sponsor to pass along to the client. If, however, there is a deficit, the FICC would approach either the sponsor or the client to collect the difference. This can get complicated and time-consuming if the sponsor is already in bankruptcy.

So, while money fund managers can exceed the 5% counterparty cap by "looking through" to the underlying Treasury collateral, they may be reluctant to push their sponsored repo exposures sharply higher. That said, in December 2019, when sponsored activity peaked at \$280bn, it was about 10% of total gov-only fund holdings. Currently, sponsored activity is just under 5% of balances, so there is still plenty of room for money funds to increase their lending through the program. At 10%, sponsored volumes would exceed \$430bn.

Broadening the appeal

Who else is participating in sponsored repo?

The cash lenders in sponsored repo appear to be getting more diverse. In 2019, when sponsored volume was last this high, money funds accounted for over 80% of the cash lent in the program. But despite their recent rapid growth, money funds account for only half of the cash lent in sponsored repo currently. There is not enough information (see below) to determine exactly what types of lenders are providing the other 50%. But based on the names of the more than 2000 sponsored clients in the FICC's program, we suspect that mutual funds have become more significant lenders. These funds may have increased their cash allocations amid market volatility. And as cleared bilateral rates have moved above the RRP, more of this cash could be coming into the repo market through sponsors. Mutual funds may feel more comfortable doing repo (indirectly) with the FICC than money funds that specialize in repo.

Given the benefits of multilateral netting, it would seem that dealers should be among of the most significant users of sponsored repo. However, the limited data since 2022 suggest that primary dealers currently account for less than 20% of sponsored repo activity. And, as repo volumes have increased this year, the primary dealers share has fallen to 17%, from 27% at the end of 2022. We think there may be two reasons for their relatively low representation in the sponsored repo data. First, many of the trades that they do with customers are already nettable *outside* of central clearing. These include transactions where Treasury GC and specific CUSIPs are exchanged. If these transactions are already nettable, dealers may see little need to novate them to the FICC. This decision may also be influenced by the flexibility they have to set their own haircuts on these transactions rather than applying the FICC's minimums. Second, much of the sponsored activity comes from large custody banks that offer the service to their customers as part of a suite of cash management services. The latest primary dealer data suggest that their market share may be increasing.

Data problems

The Fed began collecting more detailed information on repo market activity at the beginning of last year. In addition to collecting new information on uncleared repo, it is now publishing statistics on cleared bilateral and sponsored repo. These data also separate general collateral from special issue trading. But these figures only capture the activity of primary dealers, and as noted above, primary dealers' market share in sponsored repo appears to be shrinking.

By contrast, the daily figures on sponsored repo released by the DTCC include all participants - including money funds and non-dealer custody banks. Even so, there are significant limitations to the DTCC data. For instance, there is no breakdown by collateral, transaction term, or settlement type. Our sense is that most of the volume reported by DTCC is against Treasury collateral, with perhaps half for overnight tenors. Likewise, given money fund settlement preferences, it might be helpful to know what portion of the market is settled in tri-party and whether this is drawing in more cash.

Gaps in coverage mean that repo trades between a non-primary dealer and a non-money market fund may not be observable - or recorded only in aggregate without supporting details.

¹With matching repo maturities.

 $^{^{\}rm 2}{\rm At}$ least based on what we know about money fund maturities.

As a result, it is difficult to know what portion of the repo market is already centrally cleared ahead of the SEC's planned rule changes.



Derivatives Strategy

Upside protection is again starting to look attractive

Options are underestimating the probability of a large sell-off; we recommend buying high-strike 6m1y payers, given that top-left vols are suffering from a supply overhang. In Eur, we recommend fading low-strike vols through a 1y1y 1x2 receiver spread. In US swap spreads, we outline factors that could tilt spreads tighter.

USD options: Upside protection is starting to look attractive

As concerns about the banking crisis have faded, there are emerging signs that the economy is on fairly strong footing. Yet the market remains concerned that a fairly large amount of downside risk remains, resulting in volatility being high and a steep inversion of the forward curve. Forward 6m1y rates at about 4.15% are still lower than at any time since September 2022, despite spot 1y rates roughly near the average over this period.

Figure 1 shows the option-implied distribution of 6m1y rates. Despite the fact that the forward rate is about 4.15%, the most likely scenario implied by the option distribution is 4.5-5%, mainly because the distribution has a fat left tail (resulting in receivers being significantly rich to payers).

We think the modal path of rates could be somewhat higher and do not have a disagreement with the fact that a non-trivial probability of very sharp rate declines (for example, a 10% probability of being below 2.5%) is being priced in. However, the cumulative probability of 1y rates being more than 5% after six months is less than 25%, and that looks low. It is clear that the focus is likely to shift to the economy in the months ahead, and leading indicators of activity have already shown signs of turning higher, which means that a February-like rate sell-off driven by reds is again plausible. After all, the spot SOFR rate is almost certainly likely to be above 5% next month (and could move higher in June).

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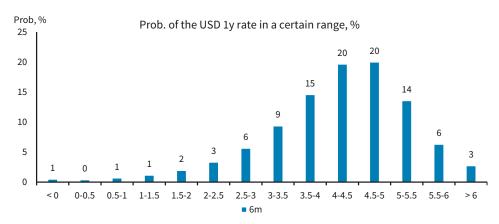


FIGURE 1. Option-implied distribution of 6m1y rates

This distribution means that for those looking to buy protection against upside surprises in rates, 6m*1y high strike payers are cheap. We choose a 6m expiry for the following reasons:

- A longer time horizon allows potential higher rate scenarios more time to materialize. Also,
 the forward 6m1y rate is much lower than 3m1y, resulting in the rate rolling up if cuts keep
 getting pushed out further in time. The delta gains from rates rolling up could be high
 enough that this could offset most of the first three months' decay from holding the option.
- Vol is structurally cheap in this part of the vol surface because of a recent deluge of supply, but one avoids the bulk of the overhang by being in slightly longer expiries (more on that below).
- A 5% strike 6m1y payer has a breakeven of about 5.1%. While this is not our base case view, all it would take is for data to recover relative to fairly pessimistic expectations, leading to the hiking cycle being extended for a few months, and for the market to price out some of the subsequent cuts.

Top left was depressed by a deluge of issuance

There has been a deluge of vol supply in the top left of the surface after the banking system troubles in March. As banks tapped the FHLB system for advances to pay down deposits in March, that led to a massive amount of FHLB debt issuance. Figure 1 shows that there was nearly \$250bn in FHLB issuance in March 2023, a historical high. A portion of this spike was funded through fixed-rate callables, resulting in callable issuance of over \$40bn, the highest notional callable issuance in a month since February 2008.

Figure 2 shows the distribution of call and maturity dates for FHLB callable issuance since the beginning of March (rounded to the nearest quarter for the call date). Most of this was in relatively short dates and tenors, with the most significant portion of about \$44bn close to 3m NC period and 1y maturity. This is likely because the advances made by the FHLB system were themselves relatively short term, as precautionary funding against deposit outflows, as opposed to funding that specifically matches longer-term loans. The coupons of most of the structures are 5-5.5%, as a result of which the effective vol supply from these structures increases substantially if 3m-6m1y rates sell off to a little over 5%.

FIGURE 2. March marked the highest callable issuance by FHLBs

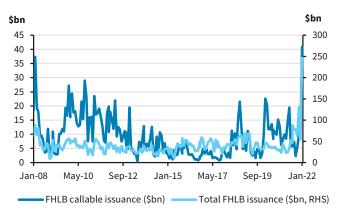


FIGURE 3. Most of the callable issuance since March 1 has under six months first call dates and 1y tenors

Maturity\next call (y)	<0.25	0.25	0.5	1	>=2
1	10.3	44.2	15.8	0.0	0.0
1-2	0.1	0.6	0.1	0.1	0.0
2-3	0.4	0.8	0.0	0.1	0.0
3-5	0.0	0.7	0.2	0.5	0.1
5-10	0.0	0.0	0.1	0.0	0.0
10+	0.0	0.0	0.1	0.0	0.0

Source: FHLB, Barclays Research

Note: Shows amount issued since March 1, 2023, in \$bn Source: Bloomberg, Barclays Research

This supply of volatility has left a mark on the vol surface and the skew. For instance, along expiry (Figure 3), the vol surface of 1y tails looks distinctly different from the other tenors; while the others are uniformly downward sloping, the vol term structure for 1y tenors is upward sloping between 3m and 1y expiries. Similarly, for the skew, payers are the cheapest to receivers in 1y tenors when measured by our relative value metric (which compares the ATM+/-50 vol difference in a given expiry/tenor pair with the 22d realized skew, using the Bergomi estimator). In other words, while vol/drate dynamics over the past month were massively negative across most tenors, the skew in 1y tenors is priced for even worse dynamics. This is a sign that shorter-expiry high-strike vols on 1y tenors are being depressed by an overhang of supply and are structurally cheap.

FIGURE 4. Vol surface in various tenors

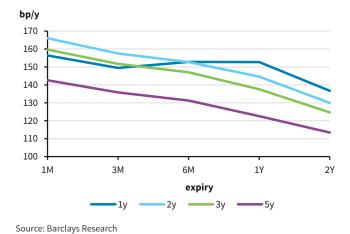
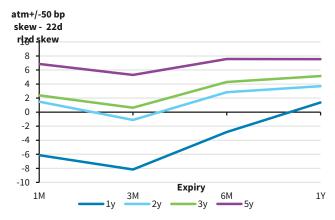


FIGURE 5. ATM+/-50 bp vol difference relative to the 22d realized estimator



Source: Barclays Research

Unwound trade

We had recommended fading the excessive tail risk priced into the USD vol surface by selling USD ATM-100bp receivers vs buying EUR ATM-50 receivers. Tail risks have receded in general, and the trade has benefited from the substantial decrease in US volatility even as rates have sold off, as a result of which we are unwinding the recommendation.

EUR Options: Taking advantage of top-left receiver skew

EUR rates have been driven higher by sticky inflation prints, resilient growth stories and improvements in market sentiment since April. While the momentum stalled this week, the short-term outlook remains uncertain. This is reflected in the vol risk premium, especially on the left-hand side, as the implied vs. 10d realized vol ratio in 1y1y has richened to 1.41.

On the one hand, strong euro area inflation data and the ECB's repeated reiteration of their priority regarding inflation control provide support for a higher and longer policy rate cycle. On the other hand, since the effects of previous hikes have been slowly transmitted to the economy and are now becoming more noticeable, it makes sense for the EUR rates curve to be more inverted, especially since the current inversion of c.-68bp in EUR 1yf1y vs. spot 1y rates looks steep compared with its US counterpart (USD 1yf1y vs. spot 1y of c.-119bp).

The buying of downside protection since the March banking concerns has richened EUR top-left receivers to historical highs. In fact, the current level of ATM+50bp vs. ATM-50 skew in 1y1y, at c.-3.7 abpv, is the lowest of any point in the past decade. While the current skew level is in line with the rates-vol dynamic, in previous episodes when the 1yf 1y rate-vol beta turned negative, the implied skew was much higher amid considerably lower realized skew.

FIGURE 6. Implied and realized 1y1y ATM+50bp vs ATM-50bp skew over the last decade

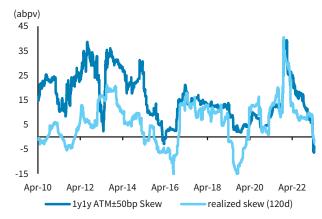
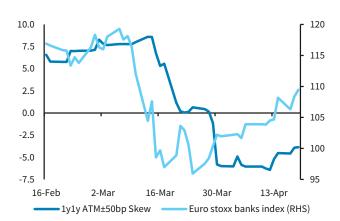


FIGURE 7. Banking risk has receded, but swaption skew pricing has lagged



Source: Barclays Research

Source: Bloomberg, Barclays Research

We recommend buying 1y*1y 1x2 low-strike receiver spreads struck at ATM-50 vs. ATM-100 to take advantage of the negative skew and position for a gradual move lower in rates in the medium term. At mid-levels, the trade can be initiated with a premium intake of about 3 cts.

- Buy €100mn 1y*1y receiver struck at ATM-50bp
- Sell €200mn 1y*1y receiver struck at ATM-100bp

Figure 8 shows the P&L profile of the trade at various times (under a constant vol assumption). On expiry, the trade makes a profit as long as the 1y swap rate is above 1.76%. If 1y spot rates end up higher than 2.8%, such as in scenarios where 1yf 1y rolls up toward the current spot rate of 3.82%, the trade will gain the initial premium intake. The structure reaches its maximum profit of 52 cts if 1y spot rates end up at about 2.31%, in a scenario of a gradual reversal of rates in the medium term, which is most likely, in our view. The breakeven of 1.76% is about 140bp lower than current forward of 3.15%; under the current market assumption of depo rates

reaching a terminal level of 3.5%, the market would have to add about 100bp of cuts over the next year to get close to that level, to which we attribute a low probability.

The structure is constructed with low strikes in order to reduce its duration exposure at initiation. The trade has long skew exposure to benefit from rich low strike volatility, and also has a short vol exposure. As the policy rate reaches terminal levels and the ECB pauses, the trade could benefit from volatility gradually grinding lower.

FIGURE 8. Payoff profile of 1y1y 1x2 receiver spread

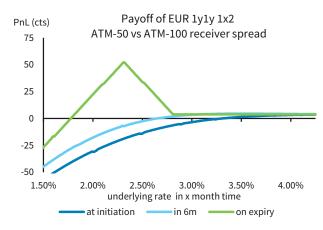
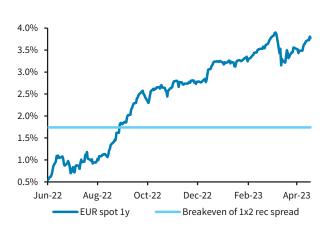


FIGURE 9. Our structure offers a generous break-even for the EUR spot 10y rate



Source: Barclays Research

Source: Barclays Research

US swap spreads

Last month's banking crisis has shown general signs of easing, with bank borrowing at the Fed's emergency facilities (ie, the discount window and BTFP) falling and deposit outflows slowing. Swap spreads have widened after March's risk-off tightening move, with 2y spreads leading the recovery (Figure 10 and Figure 11).

The increased interest rate volatility in March was accompanied by worsening of Treasury liquidity conditions and balance sheet constraints. Our markets dislocation proxy, which captures variables sensitive to these relationships, deteriorated in March (ie, moved higher) and had a notable tightening effect on long-end spreads, where they are more sensitive to balance sheet conditions (Figure 12). Our variable annuity (VA) proxy also moved into receiving territory, so there may have been some hedging driven tightening in long-end spreads. As the banking sector stress eased and liquidity conditions improved, along with the VA proxy drifting back into paying territory, long-end spreads are back to where they were pre-SVB.

FIGURE 10. Spreads have widened across the curve over the past month since the banking turmoil in March...

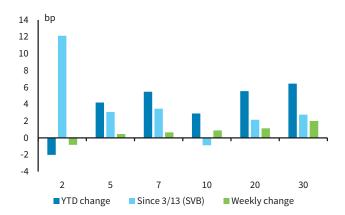
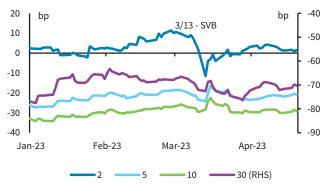


FIGURE 11. ...led by the widening in front-end spreads



Source: Barclays Research

Source: Barclays Research

FIGURE 12. Long-end spreads have widened as balance sheet conditions have improved over the past month

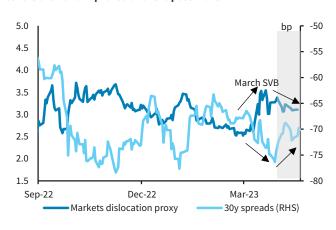
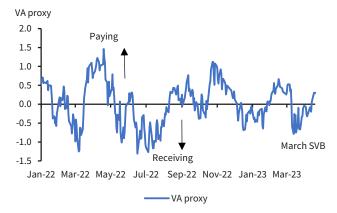


FIGURE 13. The VA proxy was solidly in receiving territory in March, but is now back in paying territory



Source: Barclays Research

Source: Bloomberg, Barclays Research

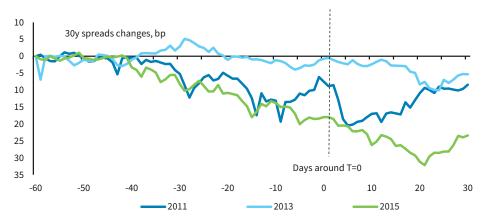
Overall, we think the balance of risk is towards tighter spreads and find limited support for them to widen much more, for several reasons:

- Nearing the end of Fed tightening cycle: Spreads have generally been directional with the
 move in rates, particularly at the front end. 2y spreads widened as front-end yields
 increased over the past year, and the move was sometimes exacerbated by heightened
 short interest in the 2y note. With the end of the Fed hiking cycle likely approaching and
 demand for secured financing of long cash Treasuries increasing, we believe this should
 limit the scope for front-end spreads to widen much more.
- Balance sheet constraints: The Fed's ongoing QT program, tightening of financial conditions, and scarce bank balance sheets should keep also keep a lid on spreads. Our fair value model points to 30y spreads at about -75bp, not too far off from where it is currently trading at -70bp.
- Fiscal outlook: The CBO's upward revision in longer-term deficit forecasts (see here) also suggests that the widening potential for spreads, especially at the longer end of the curve, is limited. Spreads, especially of longer tenors, could tighten more if deficit forecasts are

revised higherto the CBO's path.

- Banks AFS losses: Increased scrutiny on banks' available for sale (AFS) portfolios) is also
 likely to curtail bank lending and risk appetite and tighten credit conditions. This could
 result in banks' taking a more precautionary stance with their capital and limit buying of
 spreads, which are leverage constrained trades.
- Debt ceiling: The debt ceiling was suspended in January, and the Treasury has been drawing
 on extraordinary measures to create headroom to continue marketable borrowing. There is
 some uncertainty about the X-date, but market pricing of bills puts the time frame at
 July/August. In previous debt ceiling episodes, long-end spreads typically tightened as rates
 rallied and the spread curve flattened around the debt resolution dates (Figure 14).

FIGURE 14. 30y spreads have typically tightened heading into debt ceiling resolution dates



Cumulative changes since T-60, T=0 is debt ceiling resolution date Source: Barclays Research



Euro Area: Rates Strategy

Looking through the noise

In the near term, intermediate-tenor euro yields are likely to remain at the mercy of dataflow and ECB commentary, but we see medium-term potential for some move lower on moderating inflation uncertainty and increasing growth risks. Elsewhere, we analyse prospects for re-attainment of an investment grade rating by Greece.

Developed market yields have been pushing higher for much of the past week, albeit some renewed bullish pressures were felt on Thursday (on weak US growth data). Euro area dataflow has been subdued; in the UK on the other hand, inflation and labour market data both surprised to the upside, encouraging significant cross-market underperformance of the GBP front-end. Regarding ECB commentary, Chief Economist Lane (a relatively more dovish GC member) played down euro area recession risks, flagging recent easing of financial stability fears and supply chain bottlenecks; given this backdrop, Lane voiced support for a further rate hike in May, while remaining non-committal on its magnitude¹. In a similar vein, GC members including Lagarde, Knot, Kazaks and De Cos indicated support for a further increase in policy rates at next month's meeting². Elsewhere, minutes for the March ECB meeting stated that "a very large majority" of GC members supported the decision to raise interest rates by 50bp.

In the context of the latest ECB commentary, the key question for the market is now how likely a further 50bp move is next month, relative to a 25bp hike. In our view, the risk of a 50bp move cannot be dismissed. The ECB meeting on 4 May will be preceded by flash inflation data on 2 May (as well as the Bank Lending Survey the same day, and Q1 GDP on 28 April). The key risk for the market would be that core inflation prints significantly above consensus; this could potentially tilt the balance in favour of a 50bp hike (especially if the financial stability backdrop remains contained, and the releases on GDP and bank lending fail to add to concerns on the growth outlook). Given this risk, we would be very wary of fading the current pricing for the May meeting, which currently stands at c.32bp (Figure 2). If anything, we think risks are potentially tilted towards some further cheapening of this pricing as the meeting draws closer, with the GC's hawks likely to press the case for another 50bp move in their commentary. In turn, this could encourage some further near-term creep higher in terminal rate pricing for the ECB (Figure 1). Notwithstanding this near-term outlook for pricing at the very front-end of the curve, however, we think that on a more medium-term basis intermediate-tenor euro yields are starting to appear somewhat on the cheap side: we discuss our thinking below.

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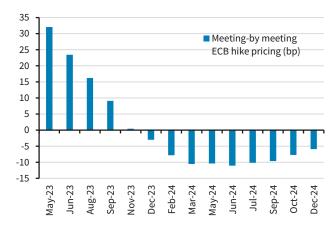
¹ 'ECB's Lane Reiterates Rate Hike Likely in May If Baseline Holds', Bloomberg, 19 April 2023

² 'ECB May Hike Rates Through July, Knot Tells Irish Times', Bloomberg, 20 April 2023

FIGURE 1. Terminal rate pricings have been pushing higher lately, for the ECB/BoE in particular



FIGURE 2. The market is now pricing in c.32bp of hikes for the May ECB meeting



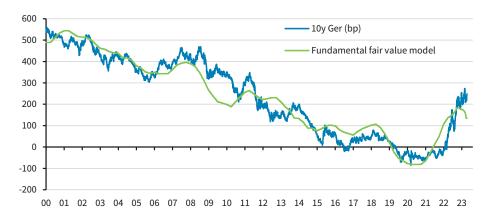
Source: Barclays Research

Intermediate-tenor yields: starting to look cheap?

Over the medium term, easing uncertainty around inflation and monetary policy may limit scope for moves higher in yields...

Last week, we argued that back-end money market forwards are now starting to look on the cheap side in Europe, with 1y2yf/1y3yf/1y4yf having pushed comfortably above 2.5% (ie, the upper end of the 2.0-2.5% range for the neutral rate indicated by ECB speakers as well as our own models). Following the recent price action, Bund yields are now hovering not far from 2.5%, c.25bp higher than their level at the start of Q2. To put this level into context, Figure 3 presents a medium-term fair value model for 10y German yields, modelled on longer-term growth/inflation expectations. At present, 10y German yields are close to two standard deviations cheap versus the fair value estimate provided by the model (Figure 4). We do not think this cheapness is necessarily entirely unwarranted: in a period of high uncertainty around the path for inflation and central bank policy, it is natural for the term premium component of yields to reprice higher, pushing yields above longer-term fair value estimates. That being said, the peak of inflation uncertainty is likely now behind us: not only is headline inflation on a downward trajectory across developed markets, but survey-based measures of inflation expectations are starting to push lower as well, as illustrated by Figure 6. In a similar vein, monetary policy uncertainty should ultimately decline over the remainder of the year, as greater clarity on the ECB's terminal rate emerges. All else equal, we think this backdrop may limit the medium-term scope for intermediate-tenor euro yields to push sharply higher from current levels.

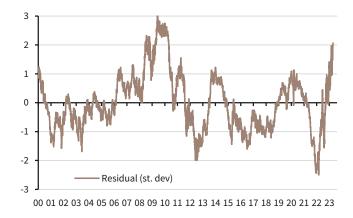
FIGURE 3. Intermediate-tenor euro yields appear somewhat on the cheap side versus medium-term fair value estimates...



Source: Bloomberg, Barclays Research

FIGURE 4. ...with our fair value framework for outright Bund yields now pointing to c.2stdev of cheapness

FIGURE 5. On a medium-term horizon, we think moderating uncertainty around inflation and monetary policy could ultimately favour some compression of euro area term premia





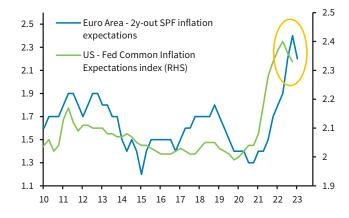
Source: Bloomberg, Barclays Research

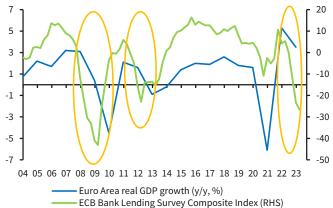
Source: Bloomberg, Barclays Research

...while building growth risks could ultimately encourage a move lower, in a context of tightening credit conditions Conversely, a medium-term reduction in inflation and monetary policy uncertainty – as headline inflation pushes lower, and the ECB's terminal rate is eventually reached – may ultimately create room for yields to settle below current levels, especially if focus on downside growth risks builds over time. With respect to the latter, even if euro area growth momentum has been holding up reasonably well lately, cumulative policy tightening (and consequent tightening of credit conditions) to date could nonetheless pose significant risks to euro area growth later in the year. Indeed, as Figure 7 shows, a sharp tightening of credit conditions (as already signalled by January's ECB Bank Lending Survey) has tended to provide a leading indicator for significant weakening of euro area growth in previous cycles. All in all, in the near-term outright euro yields are likely to remain at the mercy of ECB commentary and dataflow as argued above, both of which could catalyse some further continuation of near-term bearish momentum. In the medium to long-term, however, we think risks are likely tilted towards somewhat lower intermediate-tenor euro yields relative to current levels.

FIGURE 6. Survey-based measures of inflation expectations have shown signs of moderating on both sides of the Atlantic

FIGURE 7. Sharp tightening of credit conditions has historically tended to provide a leading indicator for significant weakening of euro area growth





Source: Bloomberg, Barclays Research

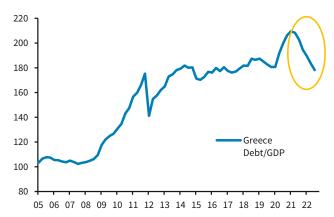
Source: Bloomberg, Barclays Research

Greece: investment grade rating drawing closer

Greece is only one notch below investment grade with S&P, Fitch and DBRS...

This Friday (21st April), S&P will review the Greek sovereign rating (BB+, stable outlook). The Greek rating has exhibited strong upward momentum lately: S&P upgraded it in April 2022, while more recently Fitch upgraded Greece in January this year and Moody's assigned a positive outlook in March. With respect to S&P, in its last review it stated that the key scenario for a further upgrade of Greece would entail continuation of structural reforms, alongside stronger-than-expected economic and budgetary performance. We see a meaningful likelihood of S&P revising the outlook on the Greek rating to positive on Friday, given Greece's recent track record of implementing structural reforms, alongside the backdrop of a declining Debt/GDP ratio (both of which had been cited by Moody's in its decision to change the outlook to positive last month). The upcoming elections scheduled for 21 May would be one factor that could potentially motivate S&P to hold off on a change in the outlook. Even so, rating agencies have generally struck a sanguine tone with respect to these elections in recent reports; in its January report, Fitch noted that electoral risks "are mitigated by a broad commitment to and a recent track record of fiscal prudence". All in all, the elections by no means preclude the possibility of a change in the outlook at Friday's S&P review, in our view.

FIGURE 8. A declining Debt/GDP ratio is an important supportive factor for the Greek rating...



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rebound



FIGURE 9. ...in the context of Greece's healthy post-COVID growth

Source: Bloomberg, Barclays Research

Source: Bloomberg, Barclays Research

...which we think makes reattainment of IG status a likely prospect in late 2023 or early 2024 With respect to Greece's path to an investment grade (IG) rating, it should be noted that S&P, Fitch and DBRS all rate Greece one notch below IG, with stable outlooks (Moody's rates Greece three notches below IG, but with a positive outlook as mentioned above). Beyond the S&P review on Friday, Fitch will review Greece on 9 June, DBRS on 8 September and Moody's on 15 September. To us, the most likely path to an IG rating would see one or more of S&P/Fitch/DBRS change their outlooks to positive at their upcoming reviews. With a positive outlook in place, an upgrade to IG could then occur as quickly as in six months; as such, we think achievement of an IG rating in late 2023 or early 2024 appears a likely prospect. Even faster attainment of an IG rating is not implausible; even so, this would likely require one of S&P/Fitch/DBRS to initiate an immediate upgrade (ie, without taking the first step of changing the outlook to positive). While rating agencies have done this in the past, they more commonly prefer to first assign a positive outlook, making this scenario not overly likely, in our view.

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Euro Area: Inflation-Linked Markets

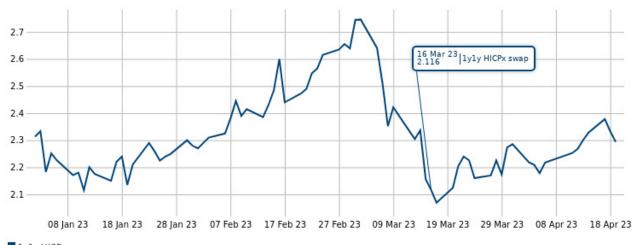
That's far enough

We recommend taking profit in our long 1y1y HICPx trade as market pricing has nicely rebounded in recent weeks and we see two-sided risks to the inflation outlook. We also recommend being long the OAT€i26/29 real yield forward.

A healthy rebound

The rebound in near-term forward euro HICPx pricing has gone far enough, in our opinion, and we recommend taking profit in our recommendation to be long the 1y1y HICPx swap (partially hedged with a 1y nominal swap) (Long 1y1y euro HICPx swap, partially hedged, 16 March 2023). At the time, our thinking, in essence, was that the sharp selloff beginning in early March, and accelerated by the global banking stress last month, was overdone and we were due for a partial correction. Over the past month, we have seen the rebound as expected, but we suspect we may be entering a new phase in the inflation narrative (Figure 1).

FIGURE 1. 1y1y HICPx swap rate



■ lyly HICPx swap

Open in Barclays Live Chart

Source: Rates - Barclays Trading, IHS Markit

For instance, in analysing the final March euro area inflation data, our economists find tentative signs of underlying price momentum stabilising (When no bad news is good news, 20 April 2023), but not necessarily retrenching just yet. Non-energy industrial goods inflation slowed to a one-year low at sub 4% m/m SAAR (down from as high as nearly 10% as recently as January), though considerable uncertainty remains in that sector. They project core HICP to hold between 5.3-5.7% through August before dropping down to 3.2% by December. 2024, by contrast, is

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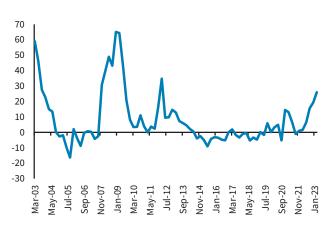
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expected to see a more concerted deceleration to 1.95%/1.78% y/y headline/core by December, below both the ECB's latest projections and the HICPx swaps market through 2024 (though note that monthly levels between 1-2y HICPx sector should be taken with a healthy grain of salt due to difficulty marking that area of the curve).

FIGURE 2. Barclays' HICPx forecast is below the fixings market

10% 9% **Barclays Forecast** 8% Fixings Markets 7% 6% 5% 4% 3% 2% 1% 0% Jan-23 Apr-23 Sep-23 Feb-23 Mar-23 May-23 Jun-23 Jul-23 Aug-23 Oct-23 Vov-23

FIGURE 3. ECB survey change in credit standards lending to business last 3m (net %)



Source: ECB, Bloomberg, Barclays Research

Source: Barclays Research

One way to explain the basis between our forecasts and market levels is by pointing towards asymmetric upside risks and the resulting positive inflation risk premium. However, going forward, we see two-sided risks to the euro area inflation outlook. On the one hand, upside risks have clearly not fully dissipated. As noted by our economics team, core inflation price pressures could unwind slower than expected, especially as an acceleration of EA wage growth above 4% y/y in 2023-24 is now a live possibility. However, in our opinion, it is not obvious how asymmetric to the upside the situation still is. Downside risks are supported by:

- The full consequences of the monetary tightening over the past year have likely not yet been fully felt; the MRO rate was 0.0% through July 2022 and rate hikes famously work with 'long and variable lags'.
- A credit tightening following March's bank stress appears to be underway, and standards are already at their tightest since the euro crisis a decade ago (Figure 3).
- Although we are far from classical monetarists, it is hard to completely ignore the sharp slowing of M2 growth (now near multi-decade lows).
- The UN's FAO food price index, which admittedly has only a loose correlation with HICP food, is now down more than 20% y/y.

Putting this all together, we feel comfortable taking profit in our 1y1y HICPx long (estimated mid P&L of +22bp, including performance of the 15% 1y nominal swap hedge). The tactical rebound has already played out, with pricing still sustaining a premium to both our forecasts and the ECB target despite some pullback over the recent sessions. Risks to 1y1y inflation are now two-sided, in our opinion.

A real opportunity

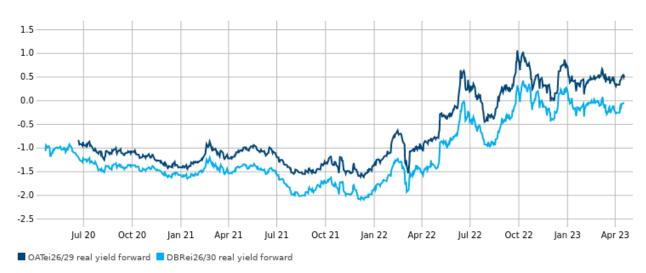
The sequencing of events, however, does open a trade opportunity, in our opinion, in real yields. Current underlying strength in core inflation, and the possibility of strong wage growth with the upcoming German public sector negotiations likely to be closely watched (for more

details, see New public sector negotiations this weekend, 18 April, 2023), will leave the ECB in a hiking posture, at least in the short term. Indeed, the market is currently pricing in an additional c.80bp of rate hikes by September. Although the banking stress will eventually lead to tighter credit conditions, the impact on realized inflation may take some time to play out, and recent ECB commentary has indicated a data-dependent stance (which is inherently backward-looking). We see the combination of these dynamics as putting upward pressure on real yields in the front end in the near term. However, if our assessment of stabilisation in euro area inflation with growing downside risks the further we look ahead is correct, that would moderate upward pressure on real yields on a forward basis, and potentially lead to a forward cyclical turn over, or at least the market being required to probabilistically price in that scenario. If realized, this is a clear set-up for a real yield flattener bias, or to be long forward real yields.

Our preferred expression of this thesis, which we are recommending, is to be long the OAT€i26/29 real yield forward. It currently sits at over 50bp, well into positive territory, and has not discernibly fallen YTD even as we approach the end of the ECB's hiking cycle and the March banking stress has tightened credit conditions and expanded downside growth risks. Moreover, even though this week's OAT€i issuance was further out the curve, the offerings saw strong demand (stopping 2-3bp through mids) at real yields only slightly above the OAT€i26/29 forward. Of course, we are comparing very different duration levels here, but this suggests demand for OAT€i real yields at these levels, which could help richen intermediate tenors as well.

A couple of additional reasons that we specifically prefer the OAT€i26/29 forward are that: 1) we prefer to stick with core €i issues to avoid complications from any peripheral spread widening, and 2) we note that the OAT€i26/29 forward offers a real yield nearly 60bp over the DBR€i26/30 real yield forward, despite covering relatively similar areas of the curve. While the spread between those two forwards is nowhere close to its extremes, it is still elevated at its 83rd percentile over the past three years, suggesting a solid entry point. We enter the OAT€i26/29 real yield forward at 0.52%, and set a relatively symmetric target/stop loss of 0.00% and 1.00%, respectively.





✓ Open in Barclays Live Chart

Source: Rates - Barclays Trading, IHS Markit



UK: Rates Strategy

May in play

The upside surprise in inflation has sparked a rapid and aggressive repricing of the front end. For it to be sustained, headline inflation will need to continue to surprise and core inflation will need to stay elevated. With the curve looking flat, any resteepening should be lead by GBP 5/30s.

The latest labour market and inflation data have seemingly confirmed market expectations for a 25bp hike at the May MPC meeting. If realised, this would take the Bank Rate to 4.50%, and extend the current cycle to 440bp since December 2021. As is the current tendency with UK data, prints serve to confirm priors more than anything else. Hawks will point to the resilience of wages and the facts that inflation has continued to surprise to the upside and core has not yet fallen meaningfully. Those who are more dovishly-minded will point towards the underlying inflation print being driven by the ongoing increase in food prices, which now sits at a 45yr high, and the softening in labour market conditions. But from a market perspective, the bottom line is that the MPC had expected headline inflation to be 9.2% y/y by March versus an outturn of 10.1%, and this overshoot cannot be easily ignored.

Inflation errors have been consistently positive over this cycle

Figure 1 shows the error in consensus expectations as captured in the pre-release analysts' estimate reported by Bloomberg for the monthly CPI print along with the rolling 3-

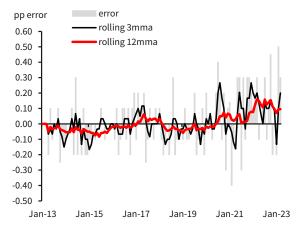
month and 12-month moving averages of the outturn error. While errors are part and parcel of the forecasting process, the fact that headline inflation has been consistently underestimated over the current cycle may be indicative of a structural upward bias that has not yet been absorbed by the market. This could be taken as evidence of a growing persistence of inflation, which will be of significant concern to the MPC members. On a number of occasions, Governor Bailey has contextualized the MPC's current challenge by referring to a sequence of shocks that have hit the economy. The MPC's task has only become more complex if we consider that it faces a confluence of adverse outcomes: an overheated labour market, energy price inflation, a housing market vulnerable to rising rates and supply side issues related to Brexit in both the labour and product markets. While other central banks face some of these issues, none face this combination of challenges and the current inflation position cannot be solely attributed to a single factor. There is little that the MPC can do to address the problems with the supply side of the economy. It can only address the demand side via the interest rate channel. There remain unanswered questions as to how the interest rate channel works given the excess liquidity position in the money markets and the move to fixed rate mortgages by households. Despite the repricing after the March inflation release, the inflation market still prices y/y CPI at levels that are not consistent with medium-term inflation reaching 2% (Figure 2) which will undoubtedly make some members of the MPC uneasy and force a wider discussion about how far the MPC should take the Bank Rate beyond a 25bp hike in May, with a clear risk that the MPC is forced to deliver more.

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FIGURE 1. Inflation errors are consistently positive



Positive error = outturn > consensus as reported by Bloomberg Source: Bloomberg and Barclays Research

Sequential rate hikes beyond May will coincide with a period of fast falling headline inflation

FIGURE 2. CPI Inflation expected to still be above 2%



Source: Barclays Research

Over the next three months, the inflation market prices headline CPI to drop from 10.1% in

March to 5.2% in July. The fall in headline inflation largely would be due to base effects as the surge in inflation in the immediate aftermath of the Ukraine invasion begins to fall out of the annual calculation. While the MPC's inflation target is defined in terms of headline CPI, the market will increasingly focus on the core CPI measure and sub-aggregates in order to gauge whether inflation has proved to be more longstanding than expected, which would require the MPC to tighten further. The repricing of policy rate expectations after the March's inflation print would be consistent with an expectation that core inflation will not fall as rapidly (if at all) and so push the MPC towards more tightening. It will not be lost on the more dovish members of the committee that most high frequency indicators of prices do confirm they are falling (Figure 3 shows the composite PMI Input and Output Price sub indices) but the issue may be that they do not fall fast enough for the MPC, and so the stickiness of core inflation will now be the key determinant for front-end pricing. Our economists forecast that core CPI will now fall from March's 6.2% y/y to 4.0% y/y by December. The expected decline in core inflation is underpinned by falling services inflation and non-energy goods. The market has moved to pricing a terminal rate of around 5%—prior to the most recent inflation and labour market data, it was around 4.50%. Much of this tightening is concentrated in the near term, with close to 70bp priced for the next three meetings (Figure 4).

FIGURE 3. Composite PMI: prices indices

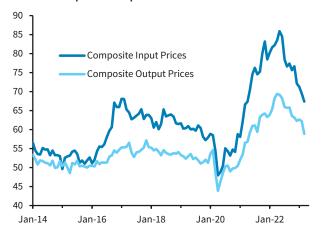
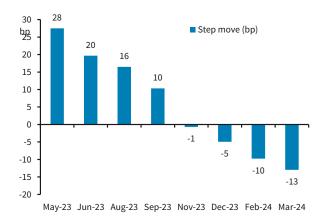


FIGURE 4. Step pricing of MPC meetings



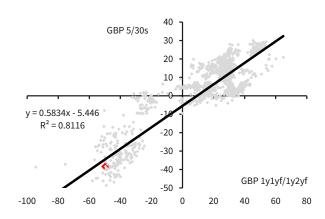
Source: Haver Analytics

Source: Barclays Research

GBP 5/30s looks too flat and should steepen

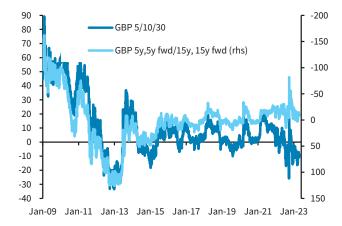
If the tightening priced in is delivered, the front-loading of tightening would likely coincide with falling inflation. The May MPR forecasts and the press conference gives Governor Bailey a platform where he can more clearly explain the outlook for the economy and the likely MPC reaction function to data. Central to this will be restoring the primacy of the medium-term outlook to the MPC. In February, the committee consciously distanced itself from its own forecasts by saying that it saw more upside risk to the near-term outlook. But should inflation fall in line with market pricing, the risk that the MPC is managing around the path of short rates moves away from dealing with the upside surprises in inflation outturns and towards tackling the persistence of inflation. That would imply that it might not be about delivering more tightening above and beyond what is currently priced but rather not easing as quickly as the market might expect as the committee keeps rates at restrictive levels for longer than would otherwise be expected. Consequently, this leaves the 5yr point on the curve, which is most sensitive to rate expectations, as fairly valued, if not a little cheap. If the MPC does not deliver the amount of tightening priced or explicitly pushes back against the rebuilding of expectations, then we should see the curve come under steepening pressure led by the 2-5yr sector. Figure 5 shows that GBP5/30s looks relatively flat when regressed against the money market slope. The impression of flatness is reinforced by Figure 6, where versus GBP5y5y/15y15yf, GBP 5/10/30s (as a measure of curvature) looks very rich and has decoupled from the shape of the long end of the curve. If the MPC do not validate expectations for the path of policy rates, the curve should come under steepening pressure, restoring term premium and paring back rate expectations. Into the May MPC decision, we would expect interest to grow in opposing the build-up of expectation via the GBP 5/30s steepener.

FIGURE 5. GBP 5/30s vs GBP 1y1y/1y2yf (bp)



Source: Barclays Research

FIGURE 6. GBP 5/10/30s vs 5y5yf/15y15yf



Source: Barclays Research



Japan: Rates Strategy

Carry market with reduced expectations for policy revision

Amid reduced expectations for BoJ policy revision, demand to invest for carry could surface ahead of the Golden Week holidays. In our view, risk remains skewed toward lower yields. In RV trades, we focus on JGB 2s5s7s butterflys, JGB 20s30s steepeners and superlong ASW longs as trades offering positive carry.

- BoJ officials appear largely cautious on the price outlook and reluctant to revise YCC at next week's MPM based on this week's media coverage. Also, on the political front, the recovery in PM Kishida's approval rating and this weekend's five by-elections for the lower and upper houses could, depending on the results, fuel expectations for an early lower house dissolution and general election, leading to subdued positioning for policy revisions at the June and July MPMs.
- Amid mounting expectations for the BoJ to retain its dovish bias, demand to invest for
 carry in the JPY rates market could surface ahead of the Golden Week holidays. In our
 view, risk remains skewed toward lower yields. In RV trades, we continue to
 recommend long positions in JGB 2s5s7s butterflys in anticipation of a strengthening
 preference for carry. We also believe JGB 20s30s steepeners and long positions in
 superlong ASWs could be somewhat attractive.

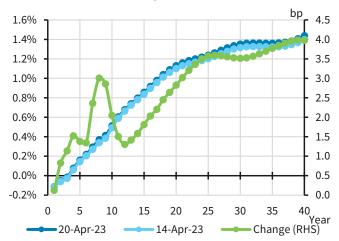
JGB yields came under upward pressure, especially in the over-7y sector, at the start of this week, following the rise in overseas yields at the end of last week. The market then held firm even as US and European yields continued to trend upward. On 18 April, Jiji Press reported that the BoJ was considering CPI forecasts around the upper-1% level for FY25 when it extends its projections as part of the quarterly Outlook Report to be released on 28 April, and with this news inducing buybacks, the day's liquidity tap auction for over-5y to 15.5y issues produced strong results with issues held heavily by the BoJ, led by the JB369, accounting for many of the successful bids. Although Thursday's 20y JGB auction produced lackluster results, the belly of the JPY curves remained firm with Bloomberg reporting Wednesday evening that more BoJ officials were turning cautious about revising YCC at the April MPM (Figure 1).

Despite the above media coverage, the market could be still wary of a "YCC attack," ie, mounting selling pressures to nudge the BoJ toward a revision/scrapping of yield curve controls (YCC). Indeed, participants arguably need to view every meeting as "live" if there is even a slight possibility of YCC revisions given that it is difficult to warn the market in advance of any such moves, as noted by Governor Kazuo Ueda. However, as noted below, we believe that the BoJ appears unlikely to revise policy at the April MPM, suggesting that – other conditions equal – buyback pressures will strengthen to the extent that there is a YCC attack in the run-up to that

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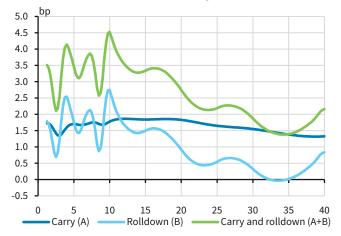
Shinji Ebihara +81 3 4530 1523 shinji.ebihara@barclays.com BSJL, Japan meeting. Also, as discussed in our *Japan Rates Strategy: Time is money*, 13 April, favourable JGB supply and demand will also tend to encourage a decline in yields in the near term. After this week's 20y JGB auction, there will be no new delta supply in the long-end of the curve until the 10y JGB auction on 9 May, following Japan's Golden Week holidays (Figure 2). Meanwhile, there are still two more JGB buying operations in the over-3y to 5y, over-5y to 10y and over-10y to 25y sectors this month (on 21 and 27 April), along with operations in the over-1y to 3y (21 April) and over-25y sector (27 April). As the carry-rolldown effects are relatively large in the first three sectors above, buying demand to secure carry during the Golden Week holidays could tend to strengthen in those sectors (Figure 3). For the JGB market as a whole, month-end rebalancing will likely bring an allocation shift from recently firm domestic and overseas equities to domestic bonds.

FIGURE 1. JGB curves and changes (14 Apr - 20 Apr)



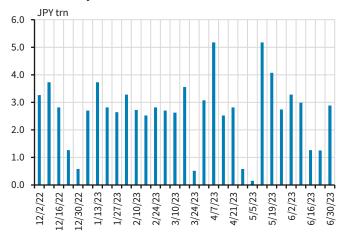
Note: Our constant maturity basis. Source: Barclays Research

FIGURE 3. JGB carry and rolldown (holding period; 3-month)



Note: Our constant maturity basis. As of the 20 April close. Source: Barclays Research

FIGURE 2. Weekly JGB issuance



Note: 10y dv01 equivalent, excluding T-bills. Source: MoF, Barclays Research

FIGURE 4. JGB 2s5s, 5s7s, 2s5s7s spreads



Note: Our constant maturity basis. Source: Barclays Research

Risk remains skewed toward lower yields given the BoJ's dovish bias, favourable JGB supplydemand and the political backdrop

The 5y sector could tend to outperform through a tightening of the 2s5s spread given the supply-demand balance around Golden Week and potentially stronger preference for carry during that period

JGB 20s30s steepeners and long superlong ASW positions look somewhat attractive as trades offering positive carry

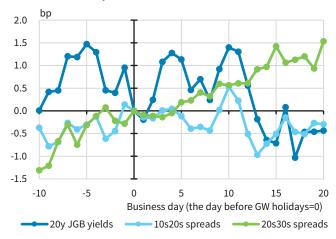
Market outlook and investment strategy: Stage set for moves to secure carry ahead of long holiday

We have favoured a long bias in outright duration and are sticking to that preference. Although the market could be on guard for a "YCC attack" ahead of the month-end MPM, the BoJ's new leaders indicated a dovish stance at last week's inaugural press conference, dampening expectations for an early policy revision, and the latest trade data released by the MoF suggest overseas investors have yet to step up any such attack, as they did prior to the January and March MPMs (see Japan Flow Update: March JGB transaction data: Banks continue to sell, while insurers and overseas investors log large net purchases, 20 April). Although there is still a need to watch for additional headline risk in the final week ahead of the April MPM, we believe the market will increasingly expect the BoJ to retain a dovish policy stance given the above reports indicating a cautious inflation outlook and reluctance to revise YCC at the meeting. Taken together with the favourable near-term supply-demand conditions, this suggests the risks remain skewed toward lower yields, especially if the recovery in PM Kishida's approval rating and the results of this weekend's five by-elections for the lower and upper house fuel expectations for an early lower house dissolution and general election (the current ordinary Diet session will end on 21 June, assuming no extensions), leading to subdued positioning for policy revisions at the 15-16 June and 27-28 July MPMs.

In RV trades, we continue to recommend long positions in JGB 2s5s7s butterflys (buying the 5y, selling the 2y and 7y). As for the supply-demand balance in the front end during the period spanning the Golden Week holidays (3-5 May), the supply schedule includes a 2y JGB auction on 26 April and a liquidity tap auction for over-1y to 5y issues on 2 May, while the demand schedule includes only one more JGB buying operation in the over-1y to 3y sector, but two more operations in the over-3y to 5y sector (21 and 27 April). In this context, the supply-demand balance appears likely to remain more favourable in the over-3y to 5y sector than in the over-1y to 3y sector during this period. Given that moves to secure carry tend to strengthen ahead of the Golden Week holidays, investor demand could tend to concentrate around the 4-5y sector, where carry-rolldown effects are relatively large on the JGB curve, in our view. In this context, the butterfly spread could tend to come under tightening pressure through a further tightening of the 2s5s spread (Figure 4).

Also, JGB 20s30s steepeners and long ASW positions that can be built at positive carry appear somewhat attractive as well. In terms of the former, the 20s30s spread has on average over the past five years tended to widen from one-two weeks prior to the Golden Week holidays until the day before and also tended to sustain a widening bias after the holidays (Figure 5). Such market movements may partly reflect a tendency to grow wary over time of the 30y JGB auction that comes after the holidays, then the subsequent 20y and 40y JGB auctions. In terms of the latter trade, 20y swaps spreads have been in a narrow range around OIS+ 5-10bp over the past year or so (our constant maturity basis; Figure 6). These spreads have widened (JGBs have outperformed swaps) since the end of last week and current levels are near the middle of this range, perhaps offering little reason to build/accumulate long ASW positions at those levels. Put the other way around, if JGBs increasingly underperform swaps, it could provide an opportunity to build/accumulate carry positions through long ASWs.

FIGURE 5. 20y JGB yields, JGB 10s20s and 20s30s spreads around Golden Week holidays



Note: Our constant maturity basis. Past 5-year average. Source: Barclays Research

FIGURE 6. Swap spreads (= JGB yields - OIS rates)



Note: Our constant maturity basis. Source: Barclays Research

April MPM: BoJ appears largely cautious on the price outlook

The BoJ appears to be considering CPI forecast below the 2% target even for FY25 in next week's Outlook Report The BoJ will extend its core CPI inflation forecasts to FY25 when it releases its next quarterly Outlook Report after the April MPM and Jiji Press reported on 18 April that it is considering projections around the upper-1% y/y level for that horizon, suggesting few within the central bank are confident that inflation will reach the 2% threshold amid financial instability in the US and Europe, deceleration in the global economy and other future uncertainties. In the January Outlook Report, the median forecasts came to 1.6% for FY23 and 1.8% for FY24 (the Jiji report says upward revisions to the FY23 forecast are under discussion). The Jiji news suggests the BoJ will likely indicate a view in the new Outlook Report that it will be difficult to reach the 2% price stability target by FY25, implying a stronger possibility that monetary policy will continue to show an easing bias during this period. This would be consistent with the dovish bias expressed by BoJ Governor Ueda during his recent inaugural press conference (for more on the inaugural press conference, see Japan Rates Strategy: BoJ Governor Ueda's inaugural press conference: Off to a dovish start, 11 April).

FG changes expected to be limited to technical adjustments in step with the government's downgrade of COVID's infectious disease status The Jiji report also touched on the possibility of changes to forward guidance (FG). More specifically, it said the BoJ will discuss its language around "closely monitoring the impact of COVID-19" with a view to changing this by the June meeting, in step with the government's legal downgrade of COVID's infectious disease status from the current Class II to Class V, equivalent to seasonal flu, on 8 May. However, assuming the cautious price outlook noted above, we would find it difficult to see the BoJ removing the easing bias of its forward guidance at the June meeting. We expect only technical adjustments in step with the government's measures, especially given that a recovery in PM Kishida's approval rating has raised the prospect of a lower house dissolution and general election as early as June or July, a scenario that has historically made it difficult for the BoJ to take policy action according to a report in the Nikkei newspaper on 12 April.

Bloomberg reports that more BoJ officials turning cautious about revising YCC at April MPM Bloomberg reported on 19 April that more BoJ officials are turning cautious about revising YCC at the April MPM, reflecting mounting uncertainty around the overseas economy accompanying US and European financial concerns and a view that improvements in market functioning still need to be monitored. Such a stance would be consistent with the views expressed by Governor Ueda and Deputy Governor Uchida at last week's inaugural press conference (ie, that now is a

time to monitor YCC side-effects and that it is appropriate to stick with the current YCC) and supports our forecast for the BoJ to stand pat at the April MPM.

FIGURE 7. Approval rating for the Cabinet

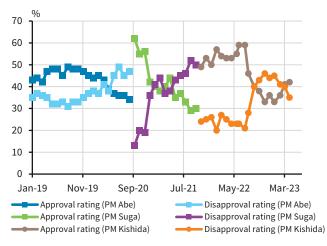
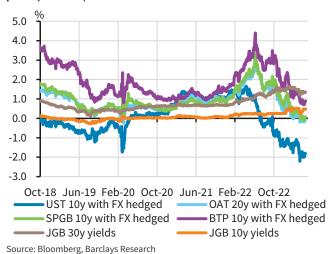


FIGURE 8. JGB yields vs FX-hedged foreign bond yields (FX-hedged period; 3-month)



Source: NHK, Barclays Research

Domestic life insurer asset investment plans: Preference for steady buying of superlong JGBs could strengthen

Plans to accumulate domestic bonds, especially superlong JGBs, while reducing FX-hedged bond holdings appear to take the upper hand According to its FY23 asset investment plan released on 18 April, one life insurer intends to deal with elevated hedge costs by selling all of its FX-hedged foreign bonds and reducing unhedged foreign bonds exposed to JPY appreciation risk, while shifting more of its investment into JGBs, especially in the superlong sector (Bloomberg and Reuters, 18 April). The company remarked that the current level of JGB yields is still insuffiient, but that the decline in the interest rates on some liabilities creates an environment that makes ALM possible, and that the company planned to go ahead and engage in steady buying without waiting for a rise in yields due to the BoJ scrapping YCC. Although other domestic life insurers have yet to release their asset investment plans, it might be assumed that they will at least continue to show a similar preference for JGBs given that long/superlong JGB yields are higher than FX-hedged foreign bond yields, which could support investment in superlong JGBs (Figure 8).

Plans indicate possible strengthening of stance toward steady buying without waiting for a rise in yields Two other life insurers that released their asset investment plans on 19 April likewise indicated an intention to reduce their FX-hedged foreign bond holdings while accumulating domestic bonds, especially superlong JGBs, albeit showing a different investment stance toward unhedged foreign bonds. According to a Reuters report on the same day, one of these companies said that current levels in the 20-30y, especially the 30y, sector would enable steady buying, while the other company said it would continue buying minimal amounts even if JGB yields slumped due to external factors in order to avoid missing investment opportunities, and that liability costs have come down with the utilization of reinsurance, so 20y yields of 1% would not result in negative spreads. Such remarks suggest a possibility that domestic life insurers will strengthen their preference for steady buying of superlong JGBs.

Investment plans indicate that life insurers could reduce their superlong JGB investments compared with last fiscal year, but the BoJ's current buying should be sufficient to offset this

With superlong yields trending downward after peaking in mid-January, buying likely accelerated ahead of the fiscal year end in order to make up for the slow start in January and February. That said, cumulative net purchases were still below typical levels for Q1, suggesting most life insurers were unable to build up their superlong JGB holdings as much as planned. Life insurers typically reduce their net buying of superlong JGBs in Q2, logging smaller purchases than at any other time during the fiscal year, but amid weakening expectations for higher yields, they could very well strengthen their steady buying approach and build up such

investments without hesitation from the start of the current fiscal year, contrary to the past few years. Although the accumulation of superlong JGB holdings by domestic life insurers could decrease compared with last fiscal year, as indicated by their asset investment plans, supply and demand in the over-10y sector could be prone to tighten more than last year due to the BoJ's large-scale purchases (provided current buying operations are sustained), providing an ample offset to any decline in the demand of life insurers (Figure 9).

FIGURE 9. JGB issuance outstanding by sector (actual and our forecasts; JPYtrn)

	End-Dec 2	ec 21 (A) (B-A)		End-Dec 22 (B)		Jan 23 to Dec 23				End-Dec 23 (C)		(C-B)		
	JGBs outstanding	(%)	Change	(%)	JGBs outstanding	(%)	New Issuance	BoJ purchase	To shorter maturity	From longer maturity	JGBs outstanding	(%)	Change	(%)
-1yr	42.4	8.6%	-6.4	-15.1%	36.0	7.5%	0.0	-1.8	-36.0	44.8	43.0	9.0%	6.9	19.2%
1-3yr	64.9	13.2%	-3.0	-4.7%	61.9	12.8%	38.0	-21.2	-44.8	21.5	55.5	11.6%	-6.4	-10.3%
3-5yr	45.3	9.2%	1.6	3.6%	47.0	9.7%	33.4	-25.5	-21.5	14.1	47.4	9.9%	0.5	1.0%
5-10yr	101.0	20.5%	-15.3	-15.2%	85.7	17.7%	36.9	-47.3	-14.1	11.1	72.4	15.1%	-13.3	-15.5%
10-25yr	171.6	34.8%	5.3	3.1%	176.9	36.6%	19.2	-13.7	-11.1	8.3	179.7	37.5%	2.8	1.6%
25yr+	67.4	13.7%	8.8	13.0%	76.2	15.7%	17.5	-4.2	-8.3	0.0	81.2	17.0%	5.1	6.6%
Total	492.8	100.0%	-9.0	-1.8%	483.7	100.0%	145.1	-113.5	-135.9	99.8	479.3	100.0%	-4.5	-0.9%

Note: As of 20 April. Trade basis. Actual and forecast values for non-price competitive auctions II. Assumes the BoJ's regular outright (rinban) purchases continue at the current amounts. Excludes JGBi and floating-rate JGBs.

Source: MoF, BoJ, Barclays Research



Global Rates Markets

Summary of Views

A summary of our views on duration, curve, swap spreads, inflation and volatility across the US, Europe, and Japan.

United States

Duration

- Incoming economic data suggest some slowing of the momentum in the economy, but we
 believe it is slowing from a position of strength and is likely growing at trend, if not above.
 The labor market remains solid with a low unemployment rate, and inflation is still elevated.
 A potential debt limit impasse poses downside risk to the economic outlook.
- Recent data suggest that banking risks are receding. Deposit flight has stabilized, and banks
 have continued to make loans, suggesting any potential credit crunch would be limited and
 the economy is likely to prove resilient to the tightening of credit conditions. We believe
 almost the entire distribution of the policy rate outlook over the next year needs to shift
 higher.
- We maintain our recommendation to short SFRZ3 (entry: 3.90% current 4.50%) paired with 1yf 2s10s curve steepeners (entry: 0bp current -13bp)(weight 0.75:1). Flattening of the forward curve should be limited, making forward steepeners a cheap hedge for left hand side tail risks.

Curve/curvature

We maintain our recommendation to pay the 5s10s30s SOFR fly (entry 7bp, current 2bp), as
it is trading rich after accounting for the fundamental drivers of the term premium, including
rate volatility.

Swap spreads

- In light of the banking upheaval in March, increased scrutiny on banks' AFS holdings could
 cause them to take a more precautionary stance, including curtailing lending and risk-taking
 and tightening their balance sheets, which would argue for tighter spreads.
- Long-end spreads have tightened as balance sheet and liquidity conditions have worsened, and along with a bleak deficit outlook and the debt ceiling impasse argue for tighter spreads.

Inflation

- We recommend being long the TIIApr25 breakeven.
- We recommend being short the TIIApr27 iota.
- We recommend positioning for a steeper breakeven curve using 5y5y versus 10yfwd20y cash breakevens.

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Volatility

- We recommend buying a 6m1y 5% strike payer to benefit from the options market underestimating the probability of another large front-end sell-off if the hiking cycle gets prolonged.
- We continue to recommend buying cheap long-dated low-strike vol by buying 3y10y ATM-100 receivers versus selling 6m10y ATM-50 receivers.
- We maintain a 10y20y + 3m10y vs 3m30y option triangle to benefit from a short gamma/long vega bias on the long end.

Money markets

- The Treasury's x-date is likely toward the end of July. The forecast, however, is bimodal as the Treasury's cash balance gets very thin in early June.
- Once the Treasury releases the official x-date we expect most of the bill rate dislocations (between 4w, 2m and 3m bills) to abate.
- Higher money fund yields are likely to draw money out of bank deposits. Rising money fund balances are expected to push RRP balances higher. We expect this will make bank reserves scarcer this summer.
- But at the same time, heavy post-debt ceiling bill issuance will push reporates higher. And this might pull money out of the Fed's program.

Europe

Duration

- EUR: In the near-term, intermediate-tenor euro yields are likely to remain at the mercy of
 dataflow and ECB commentary, but in the medium-term we see some potential scope for a
 move lower on moderating inflation uncertainty and increasing growth risks.
- GBP: The upside inflation surprise has seen rebuilding of rate hiking expectations, with a 25bp hike now fully priced for May.

Curve/curvature

- EUR: We see scope for relative underperformance of the EUR front end versus the belly of
 the curve given the ECB's continued focus on fighting inflation and medium-term risks to
 euro area growth. At the long-end, we see potential for resteepening of EUR 10s30s, bearing
 in mind a likely medium-term drift lower in EUR rate vol, as well as an increasing focus on
 medium-term growth risks.
- UK: Front-end repricing has left the curve looking flat. We would expect the curve to steepen, led by GBP 5/30s.

EGB/swap spreads

- EGBs: We maintain shorts in Bund ASW vs. ESTR, given medium-term supply/demand and macro considerations.
- UK: The gilt remit surprised to the upside (see here). We recommend buying 30yr ASW vs selling 10yr ASW (here).

Inflation

• EUR: Long the OAT€i26/29 forward real yield.

Volatility

- EUR: We recommend buying a 1y*1y 1x2 low strike receiver spread struck at ATM-50 vs ATM-100 to take advantage of the negative skew and position for a medium-term reversal in rates.
- EUR: We maintain our recommendation to buy a EUR 1y*5y + 6y*5y versus 1y*10y option triangle as a positive carry long forward vol position, benefiting from the cheap and inverted forward vol surface in intermediate tenors.

Japan

Duration

- BoJ officials appear largely cautious on the price outlook and reluctant to revise YCC at next
 week's MPM based on this week's media coverage. Also, on the political front, the recovery
 in PM Kishida's approval rating and this weekend's five by-elections for the lower and upper
 houses could, depending on the results, fuel expectations for an early lower house
 dissolution and general election, leading to subdued positioning for policy revisions at the
 June and July MPMs.
- Amid mounting expectations for the BoJ to retain its dovish bias, demand to invest for carry
 in the JPY rates market could surface ahead of the Golden Week holidays. In our view, risk
 remains skewed toward lower yields. We have favoured a long bias in outright duration and
 are sticking to that preference.

Curve/curvature

- In RV trades, we continue to recommend long positions in JGB 2s5s7s butterflys (buying the 5y, selling the 2y and 7y). The 5y sector could tend to outperform through a tightening of the 2s5s spread given the supply-demand balance around Golden Week and potentially stronger preference for carry during that period.
- JGB 20s30s steepeners look somewhat attractive as trades offering positive carry. The
 20s30s spread has on average over the past five years tended to widen from one-two weeks
 prior to the Golden Week holidays until the day before and also tended to sustain a
 widening bias after the holidays.

Swap spreads

Swap spread longs in the superlong sector also appear attractive as a positive carry trade.
 These spreads have widened (JGBs have outperformed swaps) since the end of last week
 and current levels are near the middle of this range, perhaps offering little reason to
 build/accumulate long ASW positions at those levels. Put the other way around, if JGBs
 increasingly underperform swaps, it could provide an opportunity to build/accumulate
 carry positions through long ASWs.

Inflation

- Core CPI inflation (y/y) in February and the outlook for March onward continue to work
 against JGBi investment and we still see limited upside for BEI in the near term. Based on
 our core CPI forecasts, we believe carry is likely to turn sharply negative for the month until
 10 May. As the effect of deteriorating inflation carry is larger for shorter-dated issues, the BEI
 curve could see a shift from the current sharply inverted shape to a moderately inverted
 shape.
- Assuming current issuance and public-sector purchases, we forecast that net issuance will turn positive in FY23 for the first time since FY19. Although only a small change, this

deterioration in the supply-demand profile could also weigh on the market.

Volatility

• We are currently neutral on option trades.



Calendar

Global supply calendar

Upcoming supply calendar for the US, the euro area, the UK and Japan.

Global Supply Calendar

	Country	Bond	Coupon	Maturity	Size - br
uro Area					
Apr-23	Portugal	New 10y PGB			4.00
21-Apr-23	Italy	BTP Short-Term	3.40%	28-Mar-25	2.50
21-Apr-23	Italy	5y BTPei	1.50%	15-May-29	2.50
24-Apr-23	EU	Bond Syndication			8.00
24-Apr-23	Belgium	5y BGB	0.80%	22-Jun-28	1.00
24-Apr-23	Belgium	10y BGB	3.00%	22-Jun-33	1.25
24-Apr-23	Belgium	30y BGB	3.30%	22-Jun-54	1.00
25-Apr-23	Germany	2y Schatz		12-Jun-25	6.00
26-Apr-23	Germany	15y Bund	1.00%	15-May-38	1.50
26-Apr-23	Germany	15y Bund	4.00%	4-Jan-37	1.00
27-Apr-23	Italy	5y CCT			1.50
27-Apr-23	Italy	5y BTP			3.00
27-Apr-23	Italy	10y BTP			3.25
May-23	Finland	New 10y RFGB			3.00
2-May-23	Germany	DBRei			0.50
3-May-23	Germany	7y Bund	2.10%	15-Nov-29	3.00
4-May-23	France	10y OAT			4.50
4-May-23	France	15y OAT			2.50
4-May-23	France	20y OAT			2.00
4-May-23	France	30y OAT			2.00
4-May-23	Spain	10y SPGB			1.75
4-May-23	Spain	5y SPGB			1.75
4-May-23	Spain	20y SPGB			1.25
4-May-23	Spain	SPGBi			0.50
8-May-23	EU	Bond Syndication			8.00
9-May-23	Germany	5y Bobl	2.20%	13-Apr-28	5.00
9-May-23	Austria	10y RAGB			0.75
9-May-23	Austria	30y RAGB			0.50
L0-May-23	Germany	30y Bund			1.00
L0-May-23	Germany	30y Bund	1.80%	15-Aug-53	1.50
L0-May-23	Portugal	10y PGB			0.75
L0-May-23	Portugal	5y PGB			0.75
L1-May-23	Italy	3y BTP			3.25

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Country	Bond	Coupon	Maturity	Size - bn
Italy	7y BTP			2.75
Italy	20y BTP			1.50
Japan	2y JGB			2900
Japan	10y JGB			2700
Japan	30y JGB			900
UK	Index-linked Syndication		22-Mar-45	3.00
UK	3y Gilt	3.50%	22-Oct-25	4.50
UK	10y Gilt	3.25%	31-Jan-33	3.50
US	2y Note			42
US	2y FRN			24
US	5y Note			43
US	7y Note			35
US	3y Note			40
US	10y Note			35
US	30y Bond			21
	Italy Italy Japan Japan Japan UK UK UK US US US US US US	Italy 7y BTP Italy 20y BTP Japan 2y JGB Japan 10y JGB Japan 30y JGB UK Index-linked Syndication UK 3y Gilt UK 10y Gilt US 2y Note US 2y FRN US 5y Note US 7y Note US 3y Note US 3y Note US 10y Note	Italy 7y BTP Italy 20y BTP Japan 2y JGB Japan 10y JGB Japan 30y JGB UK Index-linked Syndication UK 3y Gilt 3.50% UK 10y Gilt 3.25% US 2y Note US 2y FRN US 5y Note US 7y Note US 3y Note US 3y Note US 10y Note	Italy

Note: Shaded cells are unconfirmed Barclays estimates. Source: National Treasuries, Barclays Research



Forecasts

Global bond yield forecasts

Our latest bond yield forecasts for the US, the euro area, the UK and Japan.

FIGURE 1. Global bond yield forecasts

		US Treasuries							US swap spreads (vs SOFR)					
%	2у	5y	10y	30y	10y BE	bp	2y	5y	10y	30y				
Q2 23	4.00	3.50	3.60	3.80	2.20	Q2 23	0	-20	-25	-70				
Q3 23	3.80	3.50	3.55	3.75	2.30	Q3 23	-5	-25	-30	-75				
Q4 23	3.60	3.40	3.50	3.70	2.20	Q4 23	-5	-25	-30	-75				
Q1 24	3.40	3.30	3.40	3.60	2.40	Q1 24	-5	-25	-30	-75				

Eu	Euro government (Germany) bond yield % 2y 5y 10y 30y 10y BE Q2 23 2.60 2.20 2.20 2.20 2.30 Q3 23 2.50 2.10 2.15 2.20 2.20 Q4 23 2.35 2.05 2.15 2.20 2.20				ld	Euro area swap spreads (vs ESTR)					
%	2у	5y	10y	30y	10y BE	bp	2y	5y	10y	30y	
Q2 23	2.60	2.20	2.20	2.20	2.30	Q2 23	50	45	45	20	
Q3 23	2.50	2.10	2.15	2.20	2.20	Q3 23	40	35	35	15	
Q4 23	2.35	2.05	2.15	2.20	2.20	Q4 23	35	30	30	10	
Q1 24	2.15	2.00	2.10	2.20	2.20	Q1 24	30	25	25	10	

		UK gover	UK government							UK swap spreads (OIS ASW)					
%	2y	5у	10y	30y	10y BE	bp	2у	5y	10y	30y					
Q2 23	3.40	3.20	3.40	3.80	3.50	Q2 23	75	40	-5	-60					
Q3 23	3.40	3.20	3.40	3.90	3.50	Q3 23	70	35	-15	-60					
Q4 23	3.35	3.20	3.40	4.00	3.50	Q4 23	60	30	-20	-60					
Q1 24	3.20	3.20	3.40	4.00	3.50	Q1 24	60	30	-20	-60					

	Japan government							Japan swap spreads (TONA OIS)					
%	2y	5y	10y	30y	10y BE	bp	2y	5y	10y	30y			
Q2 23	0.00	0.15	0.50	1.40	0.60	Q2 23	20	20	25	-15			
Q3 23	-0.05	0.10	0.35	1.25	0.55	Q3 23	15	15	20	-20			
Q4 23	-0.05	0.05	0.30	1.20	0.50	Q4 23	10	15	15	-20			
Q1 24	-0.05	0.05	0.25	1.15	0.45	Q1 24	10	10	10	-20			

Source: Barclays Research

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