

Global Rates Weekly

Budding stability

The View: Dust clouds

It is premature to suggest dust is settling, but EA inflation and US labor market will help set the tone beyond ongoing developments in the banking system

- R. Preusser

Rates: Budding stability

US: Signs of banking stabilization are emerging, impact on data will take time to see

EU: We tweak our forecasts, especially in the front-end, to incorporate a market that is less eager to price high ECB rates for long

UK: Monthly Gilt supply should keep rising every month in Q2; weekly cum. <7y supply will accelerate vs. 20y+. This should help steepen 2s20s Gilt ASW curve

AU: OIS uncertain going into next week's RBA meeting. Green shoots in funding markets point to pivotal May for swap spreads. ACGB redemptions to halve in 2023/24, making supply outlook in May budget pivotal.

— M. Cabana, M. Swiber, B. Braizinha, R. Axel, S. Salim, E. Satko, A. Stengeryte, M. Capleton, O. Levingston

Front end: ON RRP tweaks won't stop bank stress

US I: We think it is very unlikely the Fed will tweak ON RRP rate or terms to stem bank stress

US II: On Wednesday, MMFs saw \$16b of outflows. On Thursday, FHLB net issuance rose \$3b and ON RRP take-up rose \$7b

– M. Cabana, K. Craig

Volatility: Dust settles on the volatility grid

US: We see scope for vol to normalize further as bank stress continues to fade and the Fed guides the market to an on-hold stance: 35bp potential underperformance of 1y1y vs 1y10y, and 10bp potential underperformance of 1m10y vs 1y10y

B. Braizinha

Inflation: Go long 1y4y EURi; BTPei iotas to compress

EU: We add a new expression of our inflation persistence theme – go long 1y4y inflation. BTPei iota compression trades appeal, with redemptions ahead

- M. Capleton

31 March 2023

Rates Research Global

Table of Contents

Our medium term views	2
Our key forecasts	2
What we like right now	2
The View	3
Rates – US	4
Rates – EU	6
Rates – UK	8
Rates – AU	10
Front end – US I	12
Front end – US II	14
Volatility – US	16
Inflation – EU	18
Rates Alpha trade recommendations	20
Global rates forecast	23
Acronyms	24
Research Analysts	29

Global Rates Research

MLI (UK)

Ralf Preusser, CFA Rates Strategist

MLI (UK) +44 20 7995 7331 ralf.preusser@bofa.com

Mark Cabana, CFA

Rates Strategist BofAS mark.cabana@bofa.com

Sphia Salim

Rates Strategist MLI (UK) sphia.salim@bofa.com

See Team Page for List of Analysts

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 26 to 28. Analyst Certification on page 25. 12535307

Timestamp: 31 March 2023 06:00AM EDT

Our medium term views

Exhibit 1: Our medium-term views

Global views

Rationale

Duration • US: Tra

- US: Trade UST long end with long duration bias & tactically in 10Y 3.25-3.75% range
- EU: We still expect the ECB to ultimately hike to 4% when the financial markets situation stabilizes. Medium term, we see Bunds rallying, with 10y yields down to 2.20% by year-end, as growth weakens and wage growth turns, supporting the pricing of rate cuts towards neutral from 2024.
- UK: We forecast 10y Gilt yields peaking at 3.75%, still above the forwards and underperforming on a cross market basis.
- JP: We remain bearish JP rates through 2023 as JGB market participants concern about a change in BoJ policy.
- AU: Rising inflation and accelerating wage growth supports AUD 10y yields around 4.5% and a flatter curve by '23 year-end.
- Front end •US: USTs vs OIS to trade with cheapening bias amidst more bill & FHLB supply; extent of cheapening is limited with MMF likely to soon extend out the curve
 - EU: We are bearish front Euribors as the market priced out hikes. Less excess liquidity to raise term premium in wholesale market. More bond supply to cheapen repo.
 - UK: We think the BoE rate hikes are over, but the Bank left enough optionality to hike again implying upside risks to our terminal Bank rate call of 4.25%.
 AU: We are bearish the front end as the RBA delivers five 25 bps hikes between December '22 and May '23 to 4.1% terminal rate. Risks from increasingly dovish RBA.
 - *Ao. we are beausifule fronterior as the NDA delivers five 2D by sinkes between beteinder 22 and way 2D to 4.1 // terminal rate. Noss from increasingly dovisions from the control of the
- Curve US: Constructive on curve steepening, catalyzed by labor market moderation and led by 2y rate decline; premature Fed pause could also drive bear steepening
 - EU: We expect 2y-10y to flatten before steepening into 2024. In the long-end, 1H23 should see flattening pressure on 10s30s as PF receive rates to increase their hedge ratios.
 - UK: We expect some curve steepening pressures to emerge when the BoE is done with Bank rate hiking cycle. Outlook for 10s30s is more mixed.
 - JP: We expect the 10yr30yr JGB curve to remain steady through 2023 though real-money investors may increasingly shift from foreign bonds to JGBs
 - · AU: We see a flattening of the curve as economy shifts from mid-cycle to late-cycle and RBA hikes rates in response to higher wage growth and inflation prints.
- Inflation US: Favor long real yields at back-end of the curve on inflation risk premium upside and attractive levels vs Fed SEP
 - EU: Be short 15y15y EURi versus USDi. Market prices Euro CPI reversing more than half its cumulative underperformance versus US CPI over next 30yrs. We would oppose this.
 - UK: We suggest a barbell spanning 10-25y UKTis to express a forward real curve flattening view. We recommend a long in 50y BEs on supply expectations and convexity gain.
 - JP: We expect wider Japan's BEI, reflecting our hawkish inflation outlook.
 - US: Treasury market resilience efforts plus lower supply and potential slowing of foreign selling is supportive of spreads, risk is large dollar strengthening or risk-off trade
 - EU: The periphery can remain resilient as the supply/demand balance is more favourable than in core EGBs. A turn in the data and an ECB going into highly restrictive territory should weigh on spreads into 2024. Given the cheapening of OATs, we see good risk-reward in shorting Bonos vs OATs
 - UK: Low coupon Gilts should be tax-efficient for retail and may outperform vs. high-coupon ones. 2s20s ASW curve should steepen amid large Gilt issuance with skew shorter
 - AU: We see inflationary pressures in AU compressing geographic spreads to US. We like a box trade (flattener in AU vs steepener in US).
 - US: Vol will drift lower in 2023, to flat levels of left vs right c.110bp by 1Q23, and cheap left side vs right by end-23 c.100bp
 - EU:. We position for lower vol only in forward space, and 10y tails. In vega, space, we believe the effective start of the transition to a new pension system in the Netherlands should provide support for long-dated vol in 30y tails.

Source: BofA Global Research

BofA GLOBAL RESEARCH

Our key forecasts

Exhibit 2: Our key forecasts

Global forecasts

Spreads

Vol

% EoP	2020	2021	2022	Q2 23	Q3 23	YE 2023	Q1 24	YE 2024
Fed Funds	0.00-0.25	0.00-0.25	4.25-4.50	5.00-5.25	5.00-5.25	5.00-5.25	4.75-5.00	3.25-3.50
10-year Treasuries	0.92	1.51	3.88	3.50	3.35	3.25	3.25	3.25
ECB refi rate	0.00	0.00	2.50	4.25	4.50	4.50	4.50	3.75
10y Bunds	-0.57	-0.18	2.57	2.45	2.30	2.20	2.20	2.25
BoJ	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	0.05
10y JGBs	0.02	0.07	0.41	0.50	0.50	0.50	0.50	0.70
BoE base rate	0.10	0.25	3.50	4.25	4.25	4.25	4.00	3.75
10y Gilts	0.19	0.97	3.66	3.75	3.75	3.75	3.75	3.75
RBA cash rate	0.10	0.10	3.10	4.10	4.10	4.10	4.10	4.10
10y ACGBs	0.97	1.67	4.05	3.60	3.80	3.80	3.70	3.70

Source: BofA Global Research

BofA GLOBAL RESEARCH

What we like right now

Exhibit 3: What we like right now

Global views

AMRS: We see risks of higher front-end rates due to inflation uncertainty, but slowdown concerns should keep longer dated rates more anchored

EMEA: In EUR, we are short Sep23 Euribor. In UK, we position for 2s20s ASW curve steepening.

APAC: In AU, we favor paid Jun RBA OIS positions, and 2s10s flatteners vs the US.

Source: BofA Global Research; For a complete list of our open trades and those closed over the past 12 months, please see below.



The View

Ralf Preusser, CFA

MLI (UK)

ralf.preusser@bofa.com

The week that will be

It is probably too early to suggest we can take stock of the outlook and market pricing following the turmoil in the banking system. The dust has not yet settled, but what can we see from within the dust clouds?

Next week's RBA and RBNZ meetings are priced for an 18% and 96% chance of a 25 bp hike respectively. The next Fed meeting is currently at 58%, BoE at 71% and ECB at 84%. Our economists see a minimum of 25 bp for each (50 bp for the RBNZ and the ECB), except the BoE, which we think is done hiking.

Out of the data flow for next week, two items stand out: EA inflation today and US payrolls next week. The ECB has made it clear that they need to see core peak to contemplate a step down in the pace of hikes. Yesterday's country prints suggest the peak in core inflation may remain elusive. With markets not even fully pricing in one hike, we see continued upside risks to front-end rates in Europe. The EUR curve risks reflattening and underperforming vs the US. We have made tweaks to our EUR rate forecasts but these core messages remain the same.

US payrolls matter since the Fed has been arguing that for the inflation target to move within reach, the imbalances in the labor market need to be resolved. Anything other than a very rapid deterioration risks challenging the cuts currently priced into the OIS curve. Our economists have taken out one hike from the Fed, but have not made changes to the expected timing of the cuts, because a meaningful enough increase in the unemployment rate still seems unlikely before year-end. We see US 10y in a trading range for now, which should offer opportunities to sell rate vol.

Our economists expect 25 bp from the RBA, and whilst seeing risks of a pause, think market pricing is overly dovish. The RBA in our view will overweight the strong jobs data vs the softer inflation data – as the EA example shows, a correction in headline may not be enough. For the RBNZ, our economists also lean more hawkish than the market, expecting 50 bp, given the RBNZ's focus on inflation and inflation expectations.

The week that was

After a dramatic two weeks, this week felt a lot calmer. Equity markets recovered, rates sold off with curves bear flattening, the dollar is softer and credit spreads are off their wides. In the absence of new, negative headlines from the banking system, the market is back to wondering by how much the tightening in credit standards will accelerate because of recent events.

Our economists have provided a framework to estimate this "excess" tightening (see <u>US Economic Viewpoint 29 Mar 23</u>) and we have provided a guide to tracking developments in funding markets (see <u>US Rates Viewpoint 30 Mar 23</u>).



Rates - US

Mark Cabana, CFA Ralph Axel
BofAS BofAS

Meghan Swiber, CFA Bruno Braizinha, CFA

BofAS BofAS

• Signs of banking stabilization are emerging, impact on data will take time to see

Recommend fading timing of first cut given Fed data dependence

What we're watching: bank liquidity, H8, RRP, macro data

The upheaval in the banking sector appears to be taking small but steady steps to normalization. We continue to believe that bank assets are generally performing well from a credit standpoint, barring pockets of commercial real estate stress, based on the Fed's delinquency data and the strength of the jobs market. The near-term developments we will be focused on, to gauge both the degree of stress and the short-to-medium term impacts, will be: 1) usage of liquidity sources including the Federal Home Loan Bank system (FHLB) and Fed facilities; 2) any significant changes in the Fed's reverse repo facility (RRP); 3) the evolution of bank balance sheets shown in the Fed's weekly H8 data (which provides information with a one-week lag); and 4) the overall macro data, particularly jobs, inflation and business/consumer confidence.

One of the key developments this week was the slowdown in liquidity tapping from FHLB, which combined with the \$11.5bn net decline in Fed facilities (Exhibit 4) to indicate stabilization / small improvement in stress that was most acute in the first week of bank closings. We take this as a sign that deposit movement within the banking system has likely slowed. Banks are comfortable enough with their cash buffers & confident enough about their deposit stability that they have returned some liquidity.

Money fund inflows need not be deposit outflows

While we view money fund flows as an important gauge of risk-on/risk-off, we are not relying on money fund flows to read into the bank balance sheet situation. Specifically, we are not looking at the large increase in government money fund holdings as representing a flow away from banks or a sign of deposit losses within the banking system. We view it more as risk-off flows from riskier financial assets.

Money fund inflows need not drain cash & deposits from banks, and generally do not. As long as the MMF do not invest in RRP, flows between assets like equities and corporate bonds to MMF just shuffle deposits around banks. A drain from banks only results when these funds invest in the Fed's RRP or money flows into the Treasury TGA account. We discuss dynamics of movement of cash across the crux of the funding system in our report Funding map: T-tables for Fed, banks, MMF.

The RRP is a daily investment offered by the Fed at a rate of 5bp above the bottom of the 25bp policy band (currently 4.75 + 0.05 = 4.8%). RRP is currently the highest rate in the Treasury market, with an equal rate only available in September Tbills which likely are impacted by debt ceiling concerns. The RRP facility therefore offers a combination of the highest and safest yield in the US government liability complex. But a key feature of the RRP is that it drains reserves from the banking sector. This would create a decrease in cash assets and bank deposits in the aggregate banking system. However, RRP has only increased about \$35bn since March 9, which shows us that banks are not suffering an aggregate loss of deposits to money funds. In fact, last week's H8 shows that deposits in aggregate only fell \$53bn. We think the market is putting too much emphasis on money fund flows and we would focus on FHLB net issuance first, and then Fed lending facilities, and H8 bank balance sheet data.



Early signs are encouraging so far

FHLB lending has slowed materially, while Fed lending has slightly declined. We take this as an overall sign that the liquidity crunch is subsiding. The next phase will be assessing the damage. The sooner the liquidity crunch ends, the less damage we would expect. The macro data, as always, will be slow to arrive and will be backward-looking, but the first hints are encouraging. We saw an increase in consumer confidence from the Conference Board surveys, which covered up until March 20^{th} , and we are still running below 200k per week in jobless claims. By comparison, claims averaged 250k/week in the 2015-2020 expansion pre-COVID. The path for rates will be a function of the Fed's confidence in getting past the bank episode, their assessment of the ongoing inflation threat, and their assessment of any longer lasting impacts to bank lending that might result from this episode which could reduce the policy rate deemed as "sufficiently restrictive".

Case for pushing out the cuts

Banks easing the degree of borrowing from Fed & FHLBs to us reflects signs of stabilization. We think this should allow the market to push out the timing of the first rate cut and recommend initiating a May vs July FOMC OIS steepener.

As discussed last week, we believe the Fed's reaction function has shifted: no revision to median Summary of Economic Projections (SEP) dots despite higher inflation and lower unemployment and Powell's comment that tightening in lending standards represents substitute for additional hikes. This means that the market is unlikely to price more than one additional hike this cycle, regardless of data strength near term. The Fed anticipates there is tightening in the pipeline from a shift in lending behavior, and so this means that even strong data near-term will likely warrant a Fed pause vs delivering more hikes. A Fed that is more willing to pause and wait for the data to turn vs hiking until the labor market cracks, should allow the market to price a higher rate for longer.

The market though has pulled forward the timing of Fed path inversion from November 2023 at the start of the month to June, one month after our US Economics team expects the final rate hike of the cycle. Despite some signs of stabilization in recent days, the market has kept June as the inflection point (Exhibit 5).

We recommend clients fade the 15bps inversion between May and July FOMC OIS, targeting Obps with a stop of -25bps. Additionally, as we note in the section <u>US</u> <u>Volatility</u>, fading the richness of the left side of the grid vs the right side is another way through which investors can position for some fading of rate cuts near-term. We favor short 6m1y vs 6m10y vol through vega weighted straddles (currently -2bp of vega – see report: <u>Bonds Ahoy</u>).

Bottom line: signs of stabilization in bank reliance on official sector financing opens door to fade near-term Fed cut and richness of left side vs right side of vol grid.

Exhibit 4: Fed balance sheet, select assets & liabilities (\$bn)

This week shows a	reduction of liquidit	y tapping at Fed faciliti	ies

	Asse	ts	Liabi	ilities	
	Discount Window	BTFP	ON RRP	Reserves	Total
3/29/2023 (current level)	88	64	2,265	3,402	8,756
Change from 3/8-3/15	148	12	-137	441	298
Change from 3/15-3/22	-43	42	224	-74	94
Change from 3/22-3/29	-22	11	-15	32	-28
Net change from 3/8-3/29	84	64	72	398	364

Source: BofA Global Research, Federal Reserve

BofA GLOBAL RESEARCH

Exhibit 5: Fed path projections (FF futures contracts, %)Despite stabilization, market has kept June as an inflection point



Source: Bloomberg



Rates - EU

Sphia Salim MLI (UK) sphia.salim@bofa.com **Erjon Satko**BofASE (France)
erjon.satko@bofa.com

- We tweak our forecasts to account for a market that will be less eager to price higher ECB rates for longer. We remain bearish relative to the forwards however.
- We still expect tighter swap spreads over time. BTP spreads can stay relatively supported in 2023 but this may change in 2024

Spring rate forecast tweaks

We tweak our rates forecasts for the next couple of quarters, to incorporate the effects the events in the US and European banking sector are expected to have on sentiment.

On the one hand, data on economic activity and inflation remain too strong/high for comfort, justifying the continuation of forceful action from the European Central Bank. The higher-than-expected (core) inflation releases yesterday keep us comfortable with our economists' decision not to revise ECB's terminal rate down from 4%.

Inflation data and the limited contagion from US and Swiss banks to Euro area banks or indeed the broader Euro area market still leaves us bearish the front-end relative to forwards. In our view, risk-reward remains skewed towards further repricing of the ECB terminal rate, to above the current 3.5%. We still hold a short position in Sep23 Euribor futures (entered at 3.23%, currently trading at 3.63% and targeting 4.25%). The main risks to the trade are lower than expected inflation or renewed concerns of contagion.

On the other hand, what is happening in the banking sector is a reminder that hiking cycles usually get stopped out abruptly because of unforeseen fragilities.

Given the public recognition of the fact that central banks make decisions while subject to great uncertainties on both policy transmission and state of the economy (reason why there is emphasis on the "meeting-by-meeting" nature of central banks' guidance), we think the market will struggle to price in peak rates above 4% and/or it will assume an earlier return to neutral than what we thought would be priced in.

Exhibit 6: Germany bond yield and EUR swap forecasts, %

We take into account the impact of latest market/banking developments and our ECB rate projection

	Q2 23	Q3 23	Q4 23	Q1 24	YE 24
3m Euribor	3.90	4.00	4.10	4.10	3.40
2y BKO	2.75	2.85	2.80	2.65	2.00
5y OBL	2.40	2.30	2.10	2.05	2.00
10y DBR	2.45	2.30	2.20	2.20	2.25
30y DBR	2.55	2.45	2.45	2.45	2.50
2y Euribor swap	3.45	3.55	3.50	3.30	2.50
5y Euribor swap	3.10	2.95	2.75	2.65	2.40
10y Euribor swap	3.10	2.90	2.75	2.70	2.65

Source: BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 7: German 5y an 10y rates history, forwards and our forecast We still see some short-term upside risks before ending the year below forwards



Source: Bloomberg. Lines beyond March 2023 represent our forecasts and current forwards (roughly flat rates and dedining)

BofA GLOBAL RESEARCH

This is the main reason why we revise down our rates forecasts for Q2 and Q3 this year, and especially so in the 2-5y part (down between -15bp and -40bp). That said, those rates remain above current forwards as we think the recent recovery in yields higher can extend somewhat (Exhibit 7). Our swaps forecasts for year-end are unchanged.



Swap spreads: still on a tightening trend

Our projections for swap spreads continue to imply a tightening trend (Exhibit 7) driven mainly by the combination of liquidity normalisation and persistently high supply of EGBs; although recent events may keep these spreads wider vs the counterfactual.

High targeted longer-term refinancing operations (TLTRO) repayments (especially at the June deadline) and the continuation (perhaps later acceleration) in Quantitative Tightening should put excess liquidity on a clearly downward path into 2024 (see ECB operational framework review as well as this week's speech by ECB's Schnabel). The exact transition to a new rates / bank liquidity system by the ECB can add significant risks on the relative valuation between €STR and EUR repo rates, but this should be more relevant for 2024 than 2023.

The point on supply is clearer – government funding needs will remain large(r) for the foreseeable future. A potential turn in the economic cycle from recovery to slowdown, coupled with increased military expenditures linked to the Russia-Ukraine conflict and the big To-Do list for the energy transition all mean that risks remain skewed on the upside for bond issuance in 2023 and the years to come.

Finally, lower rates volatility can contribute to reduced demand for "safe" collateral, supporting tighter swap spreads. Our baseline scenario where the Fed is about to reach its terminal rate is consistent with a lower rates volatility environment (our US economists expect it to be reached in May, at 5-5.25%, with rates on-hold thereafter until Mar-24, where the first cut could materialise) – see also <u>Volatility US.</u>

Credit spreads: constructive short-term, challenging outlook in 2024

Considering the resilience in EGB credit spreads (likely owed to underweight positioning and portfolio rebalancing back into government bonds at rates significantly higher than interest at bank current accounts - see BTPs: Resilient beyond most expectations), we remain generally constructive on the sector in the short-term.

If indeed the market pricing of both rates volatility and terminal rate normalises following recent events, we could even see an accelerated path to spread tightening from here, especially for BTPs. Elsewhere, we think Bonos trade too tight to OATs given the approaching Spanish elections and the different economic fundamentals and exposures to monetary policy tightening, while Ireland-OAT and DSL/RAGB-DBR wideners offer relatively cheap hedges to a deterioration of banking system sentiment.

Into 2024, high deficits and a level of nominal rates that make debt sustainability challenging for the highly indebted countries keep us on edge. For the moment, the stability in real rates (DBRI rates remain on a downward path YTD) is keeping these worries at bay, but this may change in the future.

The implementation risks of the NextGenerationEU (NGEU) programme will also be coming back into focus following the EU-Italy potential freeze in the next financing tranche (worth €19bn). There is no 1-1 translation of this tranche (in what we assume is the unlikely case that negotiations completely fail this month) into higher bond issuance from Italy this year while the growth repercussions are unlikely to be big enough to cause a significant repricing in the spread. That said, NGEU implementation is one of the main positive elements rating agencies use for Italy's credit worthiness, and a major delay in the implementation may push some of these to introduce negative outlooks – for an issuer so close to sub IG threshold, this carries significant risks although it is not our base-case.



Rates - UK

Agne Stengeryte MLI (UK)

Mark Capleton

MLI (UK)

• Monthly Gilt supply should keep rising every month in Q2; weekly cum. <7y supply will accelerate vs. 20y+. This should help steepen 2s20s Gilt ASW curve.

Gilt supply from BoE and DMO in Q2: it's time for take-off

This is a summary of <u>Gilt supply from BoE and DMO in Q2 2023: it's</u> <u>time for take-off</u> and <u>Overseas buying of Gilts in February: domestics</u> <u>to the rescue</u>, both published on 29 March 2023.

A quieter week in the UK rates market is a good time to take stock of Gilt supply and demand dynamics ahead of the new fiscal year kicking off on Monday. The UK Debt Management Office (DMO) plans to sell £241bn of Gilts in the new year, £71bn higher than this year's £170bn. As outlined in 15 March report, <u>Budget review: optimistic</u>, the DMO's plan implies that net Gilt sales to private investors will more than double from the current fiscal year, and almost double versus the previous historical record high.

Comparison of the quarterly Gilt supply totals is slightly misleading

In total, quarterly Gilt supply from the DMO and Bank of England (BoE) combined will rise by less than £2bn in Q2 2023. However, drawing conclusions from this quarterly number would be misleading as they would mask that the Q1 2023 total was inflated by a £6bn unwind of the emergency Gilt holdings by the Asset Purchase Facility (APF). All of which were unwound at the very start of January. Our estimates suggest that monthly Gilt sales from the DMO and BoE will rise every month from February to June (Exhibit 8).

The DMO issuance of Gilts will increase by around £8bn in Q2 2023, from around £54bn in Q1 to nearly £62bn in Q2 2023. The amount of Gilts sold by the APF in its "active" Quantitative Tightening (QT) operations will remain broadly stable at £9.2bn in Q2 2023. The increase in Q2 APF sales' size per auction – from £650mn/operation in Q1 to £770mn in Q2 – is due to the number of operating days available in the quarter.

New fiscal year's Gilt supply to start on a high note next week

Across the "buckets" (as defined under Exhibit 1), short-dated Gilt sales will be slightly higher in April, thanks to two short-dated Gilt auctions by the APF that month. Mediumdated Gilt sales from the DMO and BoE will increase slightly m/m while long-dated Gilt sales should peak in May, thanks to syndication (same as for auctions, we assume the average syndication size planned by the DMO).

The new fiscal year will start on a strong note, with next week's supply already more than most weeks year to date. Cumulatively, supply of sub-7y Gilts will pick up, particularly versus 20y+ Gilts (Exhibit 9). We hold onto our recommended UKT 0.625% 2025 vs. UKT 3.5% 2045 short on ASW entered at 129.5bp (on Z-spread OIS basis), targeting a spread of 70bp with a stop of 160bp. The current level is 132.4bp (Sell UKT 0.625% 2025 vs. UKT 3.5% 2045 on ASW ahead of next week's Budget, 10 March).

Gilt demand in February: domestics to the rescue

The latest data on Gilt demand continues to be hard to interpret. The Gilt purchase data for February in this week's Bank of BoE Bankstats report revealed that non-residents sold £1.3bn of Gilts in February, having sold £28.3bn in January. Next to Gilt selling, foreign investors bought £0.3bn of T-bills, having bought £1.8bn in January, and withdrew £12.5bn cash from deposits with UK Monetary Financial Institutions (MFI), having deposited £4.6bn in January. Same as in January, domestic non-bank investors



were the main buyers of Gilts in February, acquiring £14.6bn after £23.3bn buying in January. Domestic banks were small buyers of £4.2bn of Gilts in February (Exhibit 10).

Based on historical experience, several factors tend to influence overseas investor demand for Gilts. We have highlighted GBP rebalancing, overseas-domiciled Liability Driven Investing (LDI), oil price changes and GBP SSA issuance as some factors that may have been at play lately. But none appear fully consistent with the magnitude and variability of the monthly data, particularly considering recent inconsistencies relative to Gilt supply statistics from the DMO. We suspect Gilt re-shoring by LDI might be behind the puzzling overseas demand for Gilts data lately.

Supply should matter for short-dated Gilt ASWs in April

If "re-shoring" of Gilts in January and February was indeed an LDI story, both buyers and sellers of those Gilts were likely focused on the long-end of the Gilt curve, reducing (if not cancelling) the net effect on long-dated Gilt yields and spreads.

If, however, some of those flows were overseas investors, they will add to the list of factors impacting short-dated Gilt swap spreads lately, namely (1) DMO Gilt issuance skew, especially from the start of new fiscal year on Monday; (2) GBP Investment Grade (IG) issuance; (3) LDI turmoil and its aftermath; (4) mortgage hedging flows; (5) the possibility of banks buying flows once the price is right relative to Sonia; and (6) possible changes to the DMO's Standing Repo Facility (SRF) spread to Bank rate.

With the new fiscal year kicking off on Monday, we think Gilt supply dynamics will matter for Gilt ASW term structure in April. As mentioned above, cumulatively, supply of sub-7y Gilts will pick up, particularly vs. 20y+ Gilts, which could steepen the ASW curve.

Exhibit 8: Gilt supply by the DMO and BoE per month and on quarterly basis, £bn (cash)

Comparison of Q1 and Q2 2023 totals slightly misleading due to £6bn unwind of BoE emergency APF Gilt holding in early January

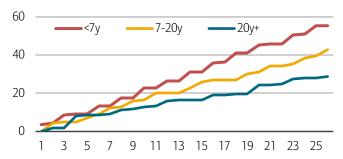
Cash, £bn	Gilt	s suppli	ied by DMO*	Gilts	s bought/sold by	BOE - 6	emerg	ency	Gilts	bough/so	ld by B	ю <u>Е -</u>	APF		DMO le	ess Bo	E	
Month ending	Short	Medium	Long IL Total	Short	Medium	Long	IL	Total	Short	Medium	Long	IL	Total	Short	Medium	Long	IL 1	Total
31/10/2022	7.1	5.9	2.5 1.9 17.5	0.0	0.0	-8.4	-7.2	-15.6	0.0	0.0	0.0	0.0	0.0	7.1	5.9	-6.0	-5.3	1.8
30/11/2022	7.8	10.5	1.3 2.2 21.7	0.0	0.0	0.5	1.4	1.8	2.2	2.2	0.0	0.0	4.5	10.0	12.7	1.7	3.6	28.1
31/12/2022	7.5	5.1	1.7 0.9 15.2	0.0	0.0	9.4	5.9	15.2	0.7	0.7	0.0	0.0	1.5	8.3	5.8	11.1	6.8	32.0
31/01/2023	8.0	3.6	6.0 1.5 19.0	0.0	0.0	4.0	2.0	6.0	1.3	1.3	0.6	0.0	3.2	9.3	4.9	10.7	3.5	28.3
28/02/2023	7.1	6.6	2.0 0.0 15.7	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	0.0	3.9	8.4	7.9	3.3	0.0	19.6
31/03/2023	8.0	6.8	3.2 0.7 18.8	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.3	0.0	2.6	8.6	7.4	4.5	0.7	21.4
30/04/2023	8.7	5.8	2.4 4.3 21.1	0.0	0.0	0.0	0.0	0.0	1.5	0.8	0.0	0.0	2.3	10.2	6.6	2.4	4.3	23.4
31/05/2023	8.7	6.9	4.5 1.3 21.4	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.0	2.3	9.4	7.6	5.3	1.3	23.7
30/06/2023	8.7	6.9	2.4 1.3 19.2	0.0	0.0	0.0	0.0	0.0	0.8	1.5	2.3	0.0	4.6	9.4	8.4	4.7	1.3	23.8
Q4 2022	22.4	21.5	5.5 5.0 54.4	0.0	0.0	1.4	0.1	1.5	3.0	3.0	0.0	0.0	6.0	25.4	24.5	6.9	5.1	61.9
Q1 2023	23.1	17.0	11.3 2.2 53.5	0.0	0.0	4.0	2.0	6.0	3.2	3.2	3.2	0.0	9.7	26.3	20.2	18.5	4.2	69.3
Q2 2023	26.0	19.5	9.2 7.0 61.7	0.0	0.0	0.0	0.0	0.0	3.1	3.1	3.1	0.0	9.2	29.1	22.6	12.3	7.0	71.0

Source: BoE, DMO, BofA Global Research. *Q2'23 Gilt supply does not ind. unalloc. Gilt sales. **BoE buying(selling) shown as neg(pos) number. ***Bucket: <7y = "short", 7-20y = "medium" and 20y+ = "long"

BofA GLOBAL RESEARCI

Exhibit 9: Weekly Gilt supply by the DMO and BoE

Short-dated Gilt issuance to accelerate in Q2 relative to mediums and longs

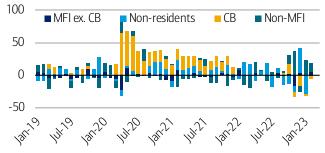


Source: BoE, DMO, BofA Global Research. Weeknum in x-axis

BofA GLOBAL RESEARCH

Exhibit 10: Monthly net buying of Gilts per investor type, £bn $\,$

Huge swings in monthly overseas investor demand for Gilts lately



Source: BoE, BofA Global Research



Rates - AU

Oliver Levingston

Merrill Lynch (Australia) oliver.levingston@bofa.com

OIS market uncertain going into April RBA meeting

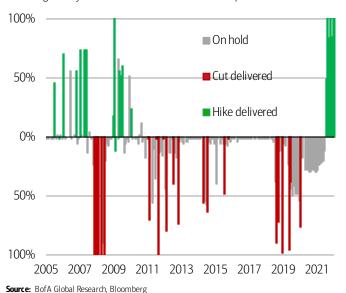
The RBA meets on 4 April, and our economists forecast the central bank will deliver its 11th and final hike of the cycle. Before 2022, the RBA usually moved in line with market expectations (Exhibit 11). The RBA only defied market expectations to deliver a hike when a cut was priced on one occasion before 2022 (i.e., in November 2009). The probability of a hike on Tuesday stands at around 13% at the time of writing, which would make the hike the lowest-priced hike in the last two decades if the RBA raises rates in line with our forecast.

The final hikes of the cycle all had a higher probability, although the final rate increase of the last hiking cycle (albeit after a lengthy pause) was priced at just 24% the day before the RBA meeting in August 2010.

The 3m/12m section of the overnight indexed swaps (OIS) curve has flattened by more than 20bps this month, inverting shortly after SVB's failure kicked off a fresh round of market volatility to trade at around -2bps near the end of this week. Typically, the OIS curve trades in a tight band around zero into the end of the cycle although the long hiking cycle of the 2000s saw false starts as the curve inverted then quickly steepened into several hikes from 2004 onwards.

Exhibit 11: Probability of decision 1 day before vs outcome

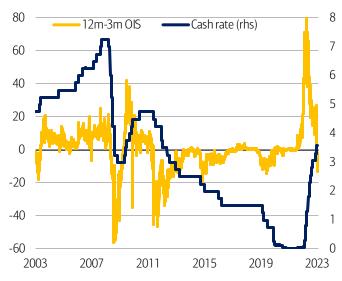
RBA has generally delivered the outcome markets expect



BofA GLOBAL RESEARCH

Exhibit 12: OIS slope points to end-of-cycle approach

Sell-off after SVB has flattened near-dated OIS



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Green shoots for issuers

After an uncertain start to the week from a surge in the Deutsche Bank bond prices, a gradual step down in volatility saw several issuers return to the market. ANZ announced a 3y and 5y funding, and several corporate issuers also added deals to the pipeline. Domestic fixed-rate issuers often hedge their issuance by paying interest-rate swaps (IRS) (approximately 60-70% of total volumes) while Kangaroo issuers receive swaps to hedge their issuance. Kangaroo and domestic, fixed-rate issuance usually steps down in April given the amount of public holidays in April (Exhibit 13, Exhibit 14). We expect that May will likely be stronger than usual given the disruption to funding programs this



month. If, as expected, the fixed-rate issuance program for corporates and banks steps up while Kangaroos steps down, then paying pressure in 3y-5y swaps should place widening pressure on front-end swap spreads.

Exhibit 13: Kanga issuance stepped down in March

Likely to remain low until H2

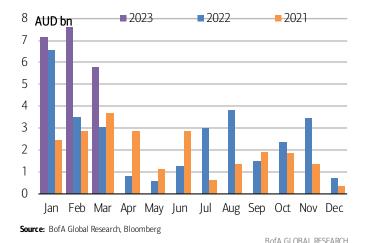
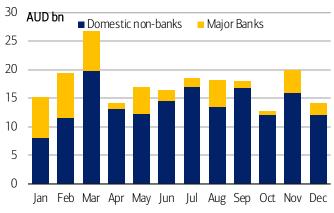


Exhibit 14: domestic (ex-Kanga) fixed-rate issuance by month (2012-2022/23)

April is usually a quiet month for issuance



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

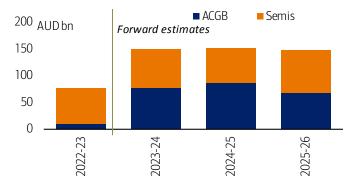
May catalyst for swap spreads

We look to May for potential catalysts to trade the swap spreads box. Bond supply will step up from July as ACGB redemptions more than halve next year (Exhibit 15, Exhibit 16) The Treasurer has also flagged changes to the way Treasury forecasts commodity prices in the Australian Government budget on 9 May, which could have substantial impacts on the supply outlook. Commodity prices exceed official forecasts by an order of magnitude and changes to the long-term forecast could substantially lower long-term issuance which would lead to wider 10y swap spreads and a flatter EFP box as long bonds richen to swap.

Alternatively, if the Treasury retains its long-term forecast a longer path back to normal poses widening risks for front-end spreads. Uncertainty over the way the Treasury will update its supply outlook is a reason to hold off swap spread positions right now but the federal budget in six weeks offers a potential catalyst for box trades depending on how the Treasury updates its commodity price outlook.

Exhibit 15: AOFM borrowing program to step up from July

Program downgrades unlikely to offset impact of lower redemptions

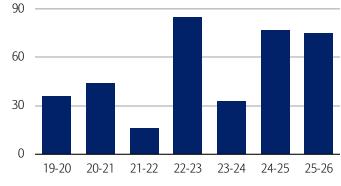


Source: BofA Global Research, AOFM

BofA GLOBAL RESEARCH

Exhibit 16: ACGB redemptions to halve in 2023/24

Bond supply to rise despite headwinds from real economy



Source: BofA Global Research, Bloomberg



Front end - US I

Mark Cabana, CFA BofAS Katie Craig BofAS katie.craig@bofa.com

mark.cabana@bofa.com katie.ci

This piece originally appeared in <u>ON RRP tweaks won't stop bank stress</u> 30 March 2023

Clients continue to ask: is it possible the Fed might lower the ON RRP rate to support banks & their deposits? Our answer remains the same: possible = yes, likely = no. Detail below.

ON RRP drop justification: lowering the ON RRP rate or reducing its per counterparty cap (currently \$160b / counterparty) would place downward pressure on money market rates. This would make money market rates less attractive vs bank deposits & could help stem bank deposit outflows.

Our pushback: lowering ON RRP is unlikely because there is a much more effective policy tool = reducing the fed funds target range. If the Fed isn't willing to lower the target range, they won't be willing to lower ON RRP.

Background: ON RRP is a tool to keep money market rates within the Fed's target range. It provides an effective floor on money market rates because if you can invest risk free with the Fed, you're unlikely to invest at a rate lower than ON RRP. If the Fed wanted to lower money market rates & make bank deposits more attractive, the more direct approach would be to cut rates, lowering the fed funds target range & RRP along with it.

The only circumstance where the Fed is likely to adjust the ON RRP and IORB spread is if fed funds (FF) is too low or too high in the target range. The Fed has widened the spread between IORB & ON RRP in the past only when FF was 5bps from top or bottom end of the target range (Exhibit 17).

If the Fed were to only lower ON RRP then they would likely see fed funds & SOFR decline with it. If the Fed were to set ON RRP below the target range, then fed funds & SOFR would likely also set below it. To set ON RRP below the target range, the Fed would essentially have lost control of their key monetary policy targets.

Wild hypothetical: the Fed could theoretically subsidize banks by setting IORB very high & ON RRP very low. It would effectively abandon its target range framework & only target FF. We think this is extremely unlikely, but please indulge the thought experiment. Extremes often help prove points.

Recall, FF is a highly idiosyncratic policy target primarily determined by the balance of bargaining power between FHLBs (dominant lender) & foreign banks (dominant borrower); for more detail see: Primer: Fed policy plumbing 16 June 2022.

The Fed could still have FF set in the current target range if it set ON RRP to zero & IORB to 16%. Our logic: FF currently trades in the 70th percentile of the 10bp IORB-ON RRP spread (FF = 4.83%, IORB = 4.9%, ON RRP = 4.8%). If the Fed set ON RRP to zero & IORB to 16%, the 70th percentile of this target range would be 4.8%. This is an unlikely extreme, but we are making a point.

We believe FF is essentially determined by the balance of bargaining power between FHLB (lender) & foreign banks (borrower). We believe the 70th percentile of the FF target range is a function of the overall cash lending / borrowing demand dynamics that would still apply with extreme setting.



The Fed could likely still achieve a FF target of 4.8% if it set IORB & ON RRP at wild extremes. It would subsidize banks vs MMF or other money market alternatives. It would also likely result in a setting of UST repo & other UST rates well below FF.

Back to real world: the Fed is very unlikely to consider such an extreme setting of its monetary policy tools. It has historically not chosen to pick winners & losers in its monetary policy setting (in the extreme example above, winner = banks receiving IORB, loser = MMF & other money market alternatives).

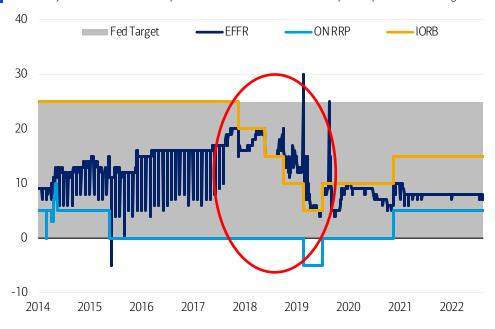
The Fed has practically not chosen such extreme monetary policy setting because it wants to tighten lending standards. One of the primary ways monetary policy impacts the real economy is via lending standards. Tighter lending = slower economy, easier lending = faster economy.

The Fed does not want to support banks over MMF or other money market alternatives because it wants banks to tighten lending standards. The Fed wants banks to compete more aggressively for funding (a point we have made many times over the past year).

Banks who compete more aggressively for deposits or other forms of funding will see NIM compress & be forced to pass along higher costs to borrowers. In essence, the economy will slow because banks are competing more aggressively for funding.

Bottom line: The Fed is very unlikely to lower ON RRP to support the banks. We think a more effective approach to tweaking ON RRP is to cut rates, lowering the target range. If the Fed isn't willing to lower the target range, then they likely will not be willing to lower ON RRP either.

Exhibit 17: Fed funds and administered rates within the Fed's target range (bps)The Fed adjusted the IORB-ON RRP spread when the FF rate was within 5 bps of top or bottom of range



Source: BofA Global Research, Federal Reserve



Front end – US II

Mark Cabana, CFA BofAS mark.cabana@bofa.com Katie Craig BofAS katie.craig@bofa.com

This is an excerpt of Follow the money: FHLBs, MMF, & Fed

- On Wednesday, MMFs saw \$16b of outflows. On Thursday, FHLB net issuance rose \$3b and ON RRP take-up rose \$7b
- MMFs saw inflows over week ending Mar 29 while ON RRP & TGA declined, implying MMF inflows recycled back into banking system

Money map: FHLBs, MMF, & Fed

We provide our real-time assessment of how funds are flowing in the system using daily & weekly data across FHLBs, MMF, & Fed.

We provide an in-depth description of how funding movements and borrowing from the Fed and FHLB impact the balance sheets of the banking sector and MMFs here: Funding map: T-tables for Fed, banks, MMF

Key takeaway: banking system stress remains high, but there are some signs of stabilization / tentative improvement. A decline in FHLB issuance may be a signal of slowing advance demand. A reduction in FHLB debt as well as typical quarter end dynamics are likely driving the increase in ON RRP take-up as MMFs shift holdings.

FHLB activity: FHLB debt issuance is the best barometer for bank advance / loan demand. Daily FHLB debt issuance data is from the BofA Securities trading desk. Trading desk data is the best real time data we are aware of; FHLB official numbers are monthly.

FHLB net issuance on Thursday, March 30th was \$3.4b after declining \$11b the prior day (Exhibit 18), which shows a significant slowdown from \$156b at the start of bank stress. This decline likely signals a slowdown in bank demand for FHLB advances. Since March 10th, FHLBs have net issued \$297b according to BofA Securities data (Exhibit 19).

Money market funds: MMF flows can represent cash moving around the system or cash leaving commercial banks. To track deposit outflows, we think the relevant statistic to watch is increase in Fed ON RRP or the Treasury cash balance.

MMF experienced inflows of \$42b on Tuesday, followed by \$16b of outflows on Wednesday, according to Crane data. This brings the two-week average to \$20b in inflows per day. In total, MMFs are up \$294b since March 10th. As FHLB debt declines, MMFs will likely continue to shift into ON RRP, which represents cash leaving the banking system.

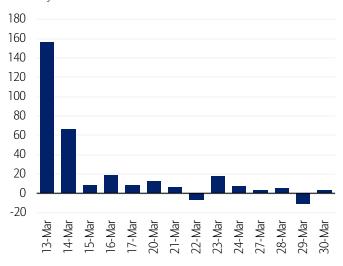
ON RRP: take-up increased \$7b on Thursday, a slowdown from the \$33b increase on Wednesday (Exhibit 20). Total use remains \$77bn above March 10th levels. We expect ON RRP take-up to continue to increase into quarter-end given typical quarter-end dynamics.

Fed bank data: Fed H.4.1 data from March 29th shows \$34bn w/w bank reserve increase likely from banks borrowing from the Fed, MMFs cutting ON RRP take-up, and payments from the TGA/Treasury paydowns (Exhibit 21). Fed H.4.1 also shows a reduction in borrowing from Fed liquidity programs (DW, BTFP; FIMA repo, CB swap lines, Exhibit 22).



Exhibit 18: Daily net FHLB debt issuance (\$bn)

FHLB daily debt issuance has slowed

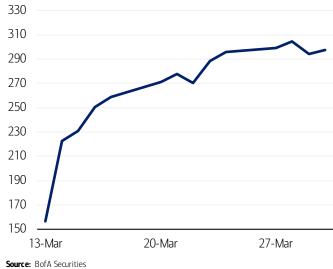


Source: BofA Securities

BofA GLOBAL RESEARCH

Exhibit 19: Cumulative growth in FHLB debt since Mar 10 (\$bn)

FHLB debt is \$297bn higher since Mar 10



BofA GLOBAL RESEARCH

Exhibit 20: ON RRP take-up (\$bn)

ON RRP take-up change from prior day was \$6.67bn



Exhibit 21: Fed reserve balances outstanding (\$bn)

Change in reserve balance from prior week was \$31.81bn



Source: Federal Reserve

BofA GLOBAL RESEARCH

Exhibit 22: Fed balance sheet, selected assets & liabilities (\$bn, Wednesday comparison data)

Reduction in Fed assets and liquidity programs came primarily out of ON RRP and TGA

	Assets						Liabilities					
Dates	Securities	Repo	Discount Window	BTFP	FDIC bank credit extension	CB Liquidity Swaps	Currency	Foreign RRP	ON RRP	TGA	Reserves	Total
3/29/2023	7,926	55	88	64	180	1	2,324	368	2,265	163	3,402	8,756
Change from 3/8-3/15	-8	0	148	12	143	0	3	0	-137	-34	441	298
Change from 3/15-3/22	-3	60	-43	42	37	0	8	3	224	-78	-74	94
Change from 3/22-3/29	-10	-5	-22	11	0	0	5	-3	-15	-37	32	-28
Net change from 3/8-3/29	-22	55	84	64	180	0	16	1	72	-149	398	364

Source: BofA Global Research, Federal Reserve

Volatility - US

Bruno Braizinha, CFA

BofAS

bruno.braizinha@bofa.com

• We see scope for vol to normalize further as bank stress continues to fade and the Fed guides the market to an on-hold stance: 35bp potential underperformance of 1y1y vs 1y10y, and 10bp potential underperformance of 1m10y vs 1y10y

As the dust settles on the volatility grid...

US rates volatility is still higher from the early March levels (Exhibit 23), but the grid dynamic is starting to normalize:

- 1y10y at c.109bp is around the mid-point of the 100-120bp range we argued would be fair for '23 (see Embracing the Pivot), and relatively unchanged from early March
- 1m10y is back to c.135bp from 180-190bp highs at the peak of stress. However, this is till 7bp higher than the early March levels and significantly inverted vs intermediates (c.25bp inversion) which reflects near-term uncertainty
- 1y1y is back to c.162bp from highs c.190-200bp. However, this is still 17bp higher from early March and significantly above right side vol even as the Fed seems to be pivoting to an on-hold stance (see Exhibit 24).

The fading of the vol highs is just another sign that the worst-case scenarios around the recent bank stress episode are starting to fade. Other signs that support this view: bank stocks seem to be bottoming out, and the movements of cash through the US financial system seem to be less risk-off (although quarter end dynamics are starting to show up with a pickup of ON RRP take-up and paydown of FHLB debt – see <u>Follow the money</u>).

Exhibit 23: Vol grid change since the 2y yield cycle peak on 8 March Left side and gamma leading the outperformance

	1y	2y	3у	5у	7у	10y	30y
1m	101	62	44	18	12	7	-2
3m	63	42	30	10	4	-1	-6
6m	46	28	21	8	3	0	-4
1y	17	7	5	0	-1	3	-5
2y	-1	-1	-2	-2	-2	-2	-3
Зу	-2	-2	-1	-2	-1	-1	-2
4 y	-1	-1	-1	0	-1	-1	-2
5y	-2	-1	-1	0	0	-1	-2
10y	-1	-1	-1	-1	-1	-1	-1
15y	0	0	0	-1	-1	-1	-1
30y	0	1	1	0	-1	-1	-1

BofA GLOBAI

Source: BofA Global Research

Exhibit 24: 1y1y vs 1y10y vol spread c.50bp currently (left side rich) Left side likely to cheapen vs right side as the Fed shifts to on-hold



Source: BofA Global Research; Bloomberg

BofA GLOBAL RESEARCH

We think there is scope for volatility to continue to normalize from here, driven by:

- Further fading of bank stress, which is likely to push gamma slightly lower and help fade some of the more aggressive scenarios for near-term Fed cuts, which in turn puts downward pressure on the left side of the grid.
- A market that refocuses on the medium-term outlook as the near-term stress fades.
 Our baseline continues to be for a slowdown in 2H23, and rate cuts only in 1Q24, which should help the process of normalization of the vol dynamic.
- The Fed pivots decisively to an on-hold stance, which should drive the left side and gamma lower.



In terms of near-term significance, the pecking order for these drivers is likely to be: (1) a further fading of bank stress; (2) shift in Fed communication to an on-hold stance; and (3) a refocus on a slower macro backdrop for 2H23.

Yet, to some extent, all roads lead to the Fed: the confidence that the Fed has the necessary tools to ease bank strains, the degree of credibility the Fed may have in its shift towards on-hold guidance; and the level of confidence in the Fed's ability to engineer a soft landing. There is a material level of uncertainty around all of these, and indeed in our note on <u>US rates forecasts & balance of risks</u> we reflected this uncertainty in our assessment for a relatively wide range of outcomes.

Historically, however, the patterns of the volatility dynamic over on-hold periods and ahead of rate cuts do support our bias towards some normalization. In Exhibit 25, Exhibit 26 and Exhibit 27, we show the dynamic of 1m10y, 1y1y and 1y10y volatility over a 6m period around the first rate cuts of the '19, '07 and '01 easing cycles, respectively:

- The left vs right side (1y1y vs 1y10y vol spread) trades on average between c.-10bp (left side cheap) and c.15bp (left side rich) ahead of the first rate cut of the last three easing cycles, vs. a c.50bp currently (left side rich see Exhibit 24).
- Gamma vs intermediates (1m10y vs 1y10y vol spread) trades on average between c.10bp (gamma cheap and a steep term structure of volatility) and c.-15bp (gamma rich and an inverted term structure of volatility) ahead of the first cut of the last three easing cycles, vs. a c.-25bp currently (gamma rich vs intermediates).

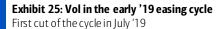




Exhibit 26: Vol in the early '07 easing cycle First cut of the cycle in September '07



BofA GLOBAL RESEARCH

Source: BofA Global Research; Bloomberg

Bottom line: the patterns we have seen for volatility ahead of the early rate cuts of the last three easing cycles therefore suggest the potential for:

BofA GLOBAL RESEARCH

- c.35bp underperformance of 1y1y vs 1y10y vol, from c.-50bp levels currently to
 c.-15bp levels that we have seen historically (fading the recent left side richness).
 This is in line with our recommendation for short left vs. right side vol through vega
 weighted straddles (see report: <u>Bonds Ahoy</u>).
- c.10bp underperformance of 1m10y vs 1y10y vol, from c.-25bp levels currently to c.-15bp levels seen historically (fading the recent gamma richness).

Exhibit 27: Vol in the early '01 easing cycle First cut of the cycle in January '01



Source: BofA Global Research; Bloomberg



Inflation - EU

Mark Capleton

MLI (UK) mark.capleton@bofa.com

Go long 1y4y EURi; BTPei iotas to compress

• We add a new expression of our inflation persistence theme – go long 1y4y inflation. BTPei iota compression trades appeal, with redemptions ahead.

We must persist

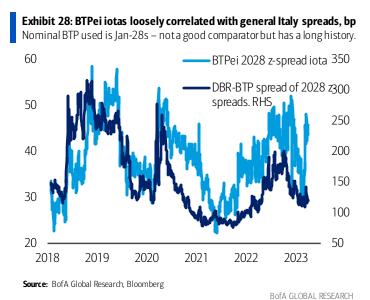
In the Rates-EU section of <u>last week's Global Rates Weekly</u>, we discussed the pronounced upside skew to respondents' expectations for end-2024 inflation in our latest FX and Rates Sentiment Survey, and the very broad (and steadily increasing) dispersion of the low level component inflation rates within Core HICP. We were also struck by the fact that only 6% of the core basket by weight was recording sub-2% inflation in the year to February. We concluded that the market was underestimating the difficulty the ECB would have "re-anchoring" inflation at or close to target.

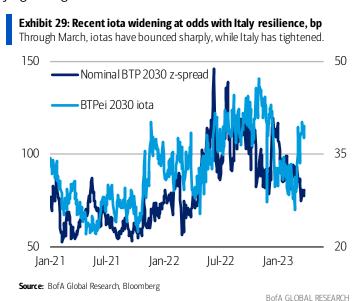
In <u>the Inflation Strategist out earlier this week</u>, we turned this view into an explicit trade, recommending a bullish position in 1y4y EUR inflation – yet another "inflation persistence" trade. The decision to strike it one year forward was because we are confident inflation will fall swiftly, near term, and we want to step over the transitory element of this imminent disinflation (i.e. energy).

In the Inflation Strategist, we recommended being long 1y4y EUR inflation at the then prevailing level of 221bp, setting a target of 260bp and a stop-loss at 200bp (current 231bp). Risk to the trade is a rapid reversal in the rise of core inflation.

If supply has widened BTPei iotas, then they should be about to re-narrow

The loose historical relationship between a BTPei's iota and Italy's general spread performance seemed to have reestablished itself up until the end of February (Exhibit 28). But March has seen a pronounced iota re-widening in the face of Italy tightening.





It's possible that iotas have been buffeted by the systemic concerns that nominal BTPs have conspicuously ignored, but that seems hard to justify. More likely, we think, has been the influence of supply. Not just this week's €1.5bn 2033 sale; we should take the



€9.9bn BTP Italia launch earlier in the month into consideration – issued cheaply (as is the norm) and potentially "crowding out" demand for regular linkers.

If this supply has indeed weighed on linkers, lifting iotas, then the situation over the next couple of months (and indeed the balance of the year) should help turn things around.

Italy will see four redemptions over the next two months. One of them is a nominal, the other three are linkers. €30bn will be returned to linker investors by 22 May - €12bn from the (uplifted par) of the May 2023 BTPei and the rest from two BTP Italia issues maturing in April and May.

We suggest that these maturities should unlock capacity to reestablish new asset swap positions in BTPei issues. To the extent that these BTP Italia issues have been firmly held in retail hands, that would not be the case, but it is worth pointing out that €9.4bn of the combined €18bn maturing BTP Italia issues were originally sold in the "second phase" of their respective sales (i.e. to institutional investors).

And having just had a BTP Italia sale, it seems most unlikely that we will see another one imminently. The smallest gap between past launches has been just under five months so far. More likely the next BTP Italia will be timed around the next maturity in November. Nor should we forget to mention that we have a second BTPei redemption in September, making projected net linker issuance very negative this year.

This should be a year of BTPei iota compression, because of negative net supply, so we see this recent widening as an opportunity.

We recommend buying BTPei 0.4% May 2030 on asset swap and selling BTP 1.35% Apr 2030 on asset swap. We will monitor the trade as a spread of z-spreads, entering at 40bp, setting a target of 25bp and a stop-loss at 48bp. Risk to the trade is a risk-off move causing a general widening of Italy spreads.



Rates Alpha trade recommendations

Exhibit 30: Global Rates Trade Book - open trades Open trades

	Entry				Latest		
Open Trades	Date	Entry	Target	Stop	Level	Trade rationale	Risk
Long 1y4y Euro inflation	28-Mar-23	221	260	200	233	Underlying inflation persistence	Rapid drop in core inflation
Short Sep23 Euribor	16-Mar-23	3.23	4.25	2.75	3.63	The market has repriced terminal too low	Contagion in financial system leading to cuts
Long 15y15y USDi/short EURi	24-Feb-23	-32	10	-52	-34	Oppose higher EZ trend inflation	EZ inflation-linked scarcity
<u>BTPei '28/'33'/'51 fly (-</u> 2 39.5%/+100%/-60.5% risk)	6-Dec-22	43	15	58	34	Oppose extreme forward inversion	Pension demand for long-end IL
39.5%/+100%/-60.5% risk) Long 1y fwd 2s5s10s fly	20-Nov-22	-15.8	-50	7	-13	The 5y sector to outperform with rally	Eurozone Inflation more persistent
Short 1y forward 1y10y vol	20-Nov-22	111	70	140	100	Short vol view medium term, post ECB tightening	Bear-steepening / surge in delivered vol
Long OAT Feb28 vs SPGB Jan28	20-Nov-22	33.2	60	20	29.6	Position for Q1 EGB spread widening market	Rates vol declining/aggressive PEPP flexibility
1y15y 1.55% receiver	26-May-22	15	45	0	0.1	Hedging the scenario of an ECB that stops short of neutral rate	Structural paying flows in 10-20y sector
<u>UKTi 2032/36/47 barbell</u>	17-Mar-23	9.5	2.0	14.0	9.0	Anomaly, weighted as forward real curve flattener	Light pension demand for 20y area supply
≤ Sell UKT1e25 v UKT3h45 on ASW	10-Mar-23	129.5	70	160	132	Large volume of short-dated Gilt issuance	Heavy overseas demand for short-dated Gilts
Long UKTi 2068 breakeven	28-Feb-23	340	375	320	340	RV cheapness, convexity	Heavy ultralong linker supply
Sell UKT4e27 v UKT1e28 on ASW	10-Nov-22	1.8	-25	12	-16.8	Retail demand for low coupon Gilts	Benchmark premium for 27s
May / July FOMC OIS Steepener	30-Mar-23	-15	0	-25	-15	Fade Fed cuts near term	Bank stress / downturn force Fed to cut
Long 5y US swap spread	20-Nov-22	-25.3	-15	-32	-23.5	Position for wider US spreads	Risk-off or foreign UST selling
Buy 30y TIPS: TII 2052	20-Nov-22	1.60%	1.00%	1.90%	1.48%	Higher carry vs market pricing near-term and eventually rally significantly on the turn in cycle we expect in '23	Terminal continues to get priced higher
Buy May '23 SOFR/FF vs Nov '23 SOFR/FF futures	20-Nov-22	5bps	-1bps	8bps	1.5bps	Supply surge post US-debt limit will tighten SOFR-FF basis	doesn't get resolved until later in '23
1y10y receiver spreads	9-Mar-23	-18bp	32bp	-18bp	6bp	Fading of recent reacceleration expectations	Extension of the cycle and new peak cycle yields
6m2y rtp spd a/a+50 vs rtr a-45	20-Nov-22	0	50bp	-20bp	-1bp	Near term hawkish Fed	Dovish Fed repricing
6m2y payers vs 1y2y payers	20-Nov-22	0	25bp	-20bp	-13bp	Higher terminal, cuts medium term	Tightening cycle extension
≤ 1y2y receiver ladders	20-Nov-22	0	35bp	-20bp	-5bp	Fed cuts by end '23	More extreme easing cycle
Short 1y1y vs 1y10y vol	20-Nov-22	Rec 23bp of vega	vega	of vega	6bp	Underperformance of left vs right side vol	Extension of Fed cycle
Long 5y30y vol vs 2y30y vol	20-Nov-22	Rec 14bp of vega	15bp of vega	-10bp of vega	11bp	Vega supported by neutral repricing	Aggressive inflation collapse
18m fwd 2s10s bull flattener	16-Feb-22	0	30	-10	-2bp	Late cycle by end-'22 / early-'23	Bull steepening on Fed cuts
1y fwd 2s10s cap spreads	8-Jul-22	23	50	-50	-30	Bull steepening as Fed pivots	Limited to upfront premium
2y fwd 2s10s cap	8-Jul-22	45	150	-50	10	Steepening as mkt enters new cycle	Limited to upfront premium
1y 2s10s floor contingent > 2y	9-Feb-23	-60	-80	0	-30	Hedge risk of hawkish Fed	Limited to the upfront premium
<u>6m10y payer ladder</u>	3-Feb-23	0	26	-15	0bp	Fading bullish dynamic in rates	Selloff beyond downside breakeven
<u>3y1y receiver ladder</u>	8-Apr-22	0	40	-20	2bp	US economy medium term slowdown	Rally through c.70bp downside b/e o
5-10yr TONA swap steepeners	20-Mar-23	34.5	44.5	29.5	31.3	Expectations of a BoJ policy change	The possibility of the new BoJ governor being more dovish than we expect
Receive 2s3s 6s3s	02-Feb-23	0.6	-1.8	2	-0.2	2s3s curve is unusually steep given funding task in 2023, likely to flatten after seasonal Kangaroo flows subside in months ahead	not ugnten
Cross-Currency 4y-10y-20y fly	16-Dec-22	22	40	15	19.75	Strengthening demand for Kangaroo bonds	Central banks' potential pivot towards lower rates
2s10s AU flattener boxed vs US	20-Nov-22	116.8	0	160	86.6	Inflation prints and central banks in each country are moving in opposite directions	Risk that FX markets will reverse current trends as rising AUD causes AU tradables disinflation

Source: BofA Global Research, Bloomberg



Exhibit 31: Global Rates Trade Book - closed trades Closed trades

	Closed trades	Entry date	Entry level	Target	Stop	Close date	Level closed
	5y5y French inflation short	20-Jan-23	265	220	290	06-Mar-23	290
	Long 10y BTPei BE (target/stop carry-adjusted)	30-Aug-22	232	285	210	06-Mar-23	275
	Sell OTM 6m1y payer to buy USD ATM+20/+70 6m1y payer spread	16-Feb-23	0	20bp	-10bp	02-Mar-23	-13.5
	Long TII 2046/ Short DBRi 2046(real yield spread)	14-Nov-22	209	150	240	24-Feb-23	178
	Long 1y1y EUR rates vol vs US vol	20-Nov-22	-180K	120K	-330K	16-Feb-23	-100K
	Long Jun23 BTF vs €str	21-Oct-22	-42	-80	-25	19-Jan-23	-21
	3m2y risk reversal	20-Nov-22	0	400K	-200K	27-Dec-22	500K
	Pay Sep23 €str 2y fwd 10s30s bull steepener	28-Oct-22 20-Nov-22	2.58 0	3.5 400k	2 -200k	27-Dec-22 1-Dec-22	3.5 -370K
	Short 5y BTP vs 2y, 10y on z-spread	20-110V-22 21-Jul-22	6.8	70	-25	18-Nov-22	16
	Dec22 FRA-OIS widener	28-Oct-22	9	16	5	10-Nov-22	7
	OATei 2031-2040 cash-for cash extension	21-Oct-22	146	90	175	10-Nov-22	88.1
	DBRi '26/'30'/'33 barbell	7-Jan-22	8.2	1	12	10-Nov-22	0
	2yf 20y 3s6s EUR basis widener	9-Aug-22	-9.2	-4.3	-12.5	17-Oct-22	-5.9
	OATei '27/'30'/'40 barbell (+44.8%/-100%/+55.2%)	17-Jun-22	14.4	0	22	13-Oct-22	23
	Long EU 2043 vs OAT 2044	23-Jun-22	7.4	-15	20	13-Oct-22	23.5
	Long US vs EUR 3m10y receiver	30-Aug-22	0	1.7mln	-1mln	12-Oct-22	119k
	Buy OATei 2040 (carry-adjusted)	23-Jun-22	11	-65	50	28-Sep-22	50
	Receive 5y5y EUR real rate	23-Jun-22	46	-30	90	28-Sep-22	90
	2s30s US CPI steepener, 2y fwd, vs EA	12-Jul-22	-55	20	-90	44799	-95
픮	Long US vs EUR 6m10y receiver	4-Aug-22	0	2.5mln	-1.5mln	30-Aug-22	566K
	ly ly vs 5y5y flattener	7-Jul-22	90	30	150	18-Aug-22	30
	Pay Dec-22 € str	23-Jun-22	96.5	130	75	21-Jul-22	111
	Pay 5y5y 3s6s EUR basis	1-Feb-22	2.5	6	0	17-Jun-22	-0.3
	6m30y 1.9% payer	26-May-22	16	45	0	15-Jun-22	50
	2y10y p/s vs 2y10y OTM payer in USD	1-Jun-22	0	600K	-300K	15-Jun-22	-300K
	Short BTPS Mar37 vs DBR May36	29-Apr-22	185	250	150	15-Jun-22	226
	Pay Jul22 ECB €STR	8-Jun-22	-21.5	-10	-28	9-Jun-22	-28
	Pay Sep22 ESTR ECB	2-Jun-22	10	30	0	8-Jun-22	17
	lyly 1.45/2% payer spread Buy 2yly ATM payer vs 4yly ATM+35	26-May-22 31-Mar-22	150K -90K	450K 90K	0K -190K	2-Jun-22 2-Jun-22	260K -75K
	Long €100mln 3m10y ATM receivers	2-Mar-22	11	30	0	2-Jun-22	0
	1y1y/2y3y Euro inflation flattener	6-May-22	-43.8	-80	-25	1-Jun-22	-77
	Pay 2y30y EUR real rates	18-Mar-22	-149	-60	-200	26-May-22	-57
	5y fwd 2s10s bear steepener	18-Mar-22	0	500K	-250K	28-Apr-22	135K
	Short Mar37 BTP	21-Apr-22	2.75%	3.75%	2.25%	28-Apr-22	2.87%
	BTP 2s10s steepener	18-Mar-22	166	230	130	21-Apr-22	180
	Short 10y Spain (Apr32) on ASW	4-Feb-22	41	70	20	12-Mar-22	20
	18m1y ATM+25/+50 payer spread	18-Mar-22	6.5	19	0	31-Mar-22	10.9
	lun22-Mar23 FRA-€str flatteners	15-Feb-22	7.7	4.5	9.8	7-Mar-22	1.7
	Long €100mln 3m5y ATM receivers	21-Feb-22	12	35	-5	2-Mar-22	1.35
	UKTi 2047/55/65 barbell (+60%/-100%/+40% risk)	23-Jan-23	1.4	-3.5	4.0	22-Mar-23	-3.3
	Receive March 2023 MPC-dated Sonia	17-Feb-23	4.15	3.90	4.30	13-Mar-23	4.09
	Receive August MPC dated Sonia	13-Jan-23	4.40%	4.10%	4.55%	14-Feb-23	4.55%
	2y3y/5y5y RPI flattener	12-Jan-23	-13.8	-45	5	9-Feb-23	-45
	Long UKT 1.25% 2051 vs. short UKT 1.25% 2027	26-Jan-23	46.90	15	60	44959	60
	Sell UKT 4¼% 32 vs. Sonia	4-Nov-22	-28.5	0	-45	12-Jan-23	-2.7
	1y4y/5y5y RPI flattener	28-Oct-22	-8	-50	20	12-Jan-23	-9
	Receive March 2023 MPC dated Sonia	28-Oct-22	4.47	4	4.7	12-Dec-22	4.28
	Pay 1y4y RPI	8-Sep-22	478	380	530	27-Oct-22	375
	Receive UKTI 2034-2040 fwd real yield	14-Oct-22	209	120	250	20-Oct-22	56
ž	UKTi 2047/56/65 barbell (+31.6%/-100%/+68.4% risk)	16-Sep-22	-2.6	-6	-0.5	29-Sep-22	-6
	Pay 5y5y real Sonia	24-Aug-22	-128	-50	-165	26-Sep-22	-50
	ly forward 1s4s Sonia steepener	8-Sep-22	-68	-25	-85	28-Sep-22	-85
			-08 40	100	-85 -10	•	
	Long 1y1y UK RPI v US CPI	9-Jun-22				26-Aug-22	-4
	5y5y/10y20y RPI steepener	28-Jun-22	-68	-20	-95	25-Aug-22	-95
	ly forward 2s5s Sonia steepener	24-Jun-22	-25	25	-50	17-Aug-22	-50
	UKT Jan-23/Jan-25 fwd ASW narrower	20-Apr-22	66	20	90	17-Aug-22	90
	Buy IL24 @-4.56 (terms are carry-adj. bp chgs.)	22-Apr-22	0	-120	60	2-Aug-22	137
	Receive 1y1y real Sonia vs. real SOFR	18-May-22	155	210	120	9-Jun-22	116
	ly fwd 1s5s real Sonia steepener	25-Mar-22	-96	-40	-130	1-Jun-22	-39



Exhibit 31: Global Rates Trade Book - closed trades Closed trades

	Closed trades	Entry date	Entry level	Target	Stop	Close date	Level closed
	Receive 1y1y Sonia vs. paying 1y1y SOFR	12-May-22	70	140	30	19-May-22	49
	Pay 10y5y Sonia and receive 10y5y €str	3-Mar-22	10.6	50	-15	21-Apr-22	-15
	Short UKT 0.125% 2026 Gilt at 0.89% and receive 4y Sonia swap at 1.18%	6-Jan-22	-29	0	-45	24-Feb-22	-45
	GBP 2s5s real swap curve steepener	11-Feb-22	45	80	20	24-Feb-22	98
	Receive December 2022 MPC-dated Sonia and sell UKT 0.125% 2026	31-Jan-22	-42	0	-60	14-Feb-22	-60
	1y5y30y real yield curve flattener	27-Feb-23	-5	-40	+15	23 Mar-23	+15
	Long 1y US CPI inflation	23-Jan-23	215	250	195	8-Feb-23	243
	3m2y 25bp out risk reversals	20-Nov-22	0	25bp	-20bp	21-Feb-23	4bp
	1y10y US vs EUR receivers	20-Nov-22	0 (costless)	25bp of delta	-20bp of delta	1-Feb-23	25bp
	Buy 10y UST vs swap and sell 10y GE vs swap	20-Nov-22	-105	-85	-115	17-Jan-22	-88
	Short 1y1y inflation swap	12-Sep-22	3.2	2.75	3.5	29-Sep-22	2.75
	Buy 1y1y payer ladder	7-Apr-22	0	55	-20	9-Feb-23	-20
	6m10y receiver spread	11-Jul-22	16	40	-15	11-Jan-23	0
	Long 10y20y TIPS (+100% 30y, -33% 10y TIPS)	24-May-22	61	15	85	12-Sep-22	85
	Buy 5y SOFR swap spread (long UST vs swap)	2-Aug-22	-25.5	-15	-32	3-Aug-22	24.25bp
NS	Sell 1y1y vs 1y10y vol (vega wtd strds) -	1-Aug-22	-34	30	-15	12-Sep-22	-15
	Receive Sep FOMC OIS	26-May-22	2.13%	1.96%	2.23%	2-Jun-22	2.23%
	Buy 1y1y payers vs 3y1y payers	14-Mar-22	10	30	-15	4-Aug-22	40bp
	Long 10y TSY	14-Apr-22	2.83	2.25	3.1	5-May-22	3.1
	9m5y receiver spd vs 9m5y OTM payers	26-May-22	0	25	-15	16-Jun-22	-15
	ly forward 5s30s TIPS flattener	11-Jan-22	47	0	75	4-Apr-22	-6
	lyly real rate short	24-Mar-22	-44	-15	-60	1-Apr-22	-15
	Ty fwd 2s10s floor	16-Feb-22	-38	12bp	-6bp	4-Aug-22	14bp
	June '23 FF	3-Mar-22	1.84	2.4	1.55	16-Mar-22	2.4
	Sell SOFR/FF Basis	11-Jan-22	4.25	2.5	5.5	7-Mar-22	2
	Buy 2y10y rec spd vs 2y10y pay atm+75bp	18-Jan-22	0	50	-15	7-Apr-22	-15
	Pay April/July OIS	15-Mar-23	5	25	0	17-Mar-23	-30
	Pay 1y1y BOB	16-Feb-23	21	35	14	13-Mar-23	31
	Pay March OIS	07-Feb-23	22	25	11	7-Mar-23	25
	ACGB 2s10s flattener	20-Nov-22	54	0	69	27-Feb-23	23
	Receive July/August OIS	7-Feb-23	1	-15	5	22-Feb-23	8.7
	Pay February/ March OIS	25-Jan-23	16	25	11	7-Feb-23	22.4
	AU 1Y1Y, Receive NZ 1Y1Y	25-Nov-22	122	0	180	26-Jan-23	77
ں	Pay June 2023 OIS (AU)	20-Nov-22	3.68%	4.20%	3.50%	20-Jan-23	3.50%
Asiapac	Long JGBi 27	20-Nov-22	-62.3	-77.3	-54.8	20-Dec-22	-54.8
As	10y20y TONA swap flattener	20-Nov-22	46.3	30	54.5	20-Dec-22	36.3
	Long 10-year swap spread	12-Sep-22	19.5	28.5	15	27-Sep-22	28.5
	Paying 20yr TONA swaps	6-Jul-22	83	93	78	25-Jul-22	78
	Pay Aug-22 RBA OIS	3-Jun-22	1.4	1.8	1.2	20-Jul-22	1.89
	20yr JGB long (vs. a matched maturity TONA swap)	2-Jun-22	-5.5	3.5	-10	24-Jun-22	-10
	10yr30yr TONA swap steepeners	4-Apr-22	46	55	41.5	2-Jun-22	55
	Paying belly of 1yr forward 5yr10yr20yr TONA fly	28-Mar-22	-15	0	-22.5	26-Apr-22	-6.1
	Long 10-year swap spread	23-Mar-22	5	15	9	4-Apr-22	15

Source: BofA Global Research, Bloomberg



Global rates forecast

Exhibit 32: Latest levels and rate forecasts

Forecasts by quarter up to Q2 2024 plus 2024 year-end

		Latest	Q2 23	Q3 23	Q4 23	Q1 24	Q2 24	YE 24
USA	O/N SOFR	4.83	5.06	5.06	5.07	4.82	4.32	3.32
	2y T-Note	4.09	4.00	3.75	3.50	3.25	3.00	2.75
	5y T-Note	3.67	3.60	3.45	3.40	3.25	3.10	3.00
	10y T-Note	3.55	3.50	3.35	3.25	3.25	3.25	3.25
	30y T-Bond	3.75	3.70	3.55	3.40	3.40	3.45	3.50
	2y Swap	4.42	4.05	3.80	3.45	3.20	2.95	2.75
	5y Swap	3.74	3.45	3.35	3.30	3.15	3.00	2.90
	10y Swap	3.56	3.25	3.15	3.05	3.05	3.05	3.05
Germany	3m Euribor	3.05	3.90	4.00	4.10	4.10	3.90	3.40
	2y BKO	2.71	2.75	2.85	2.80	2.65	2.40	2.00
	5y OBL	2.36	2.40	2.30	2.10	2.05	2.05	2.00
	10y DBR	2.34	2.45	2.30	2.20	2.20	2.20	2.25
	30y DBR	2.40	2.55	2.45	2.45	2.45	2.45	2.50
	2y Euribor Swap	3.39	3.45	3.55	3.50	3.30	3.00	2.50
	5y Euribor Swap	3.06	3.10	2.95	2.75	2.65	2.60	2.40
	10y Euribor Swap	2.99	3.10	2.90	2.75	2.65	2.60	2.40
Japan	3m Libor	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	0.02
	2y JGB	-0.07	0.20	0.20	0.20	0.15	0.10	0.30
	5y JGB	0.09	0.50	0.50	0.50	0.40	0.30	0.50
	10y JGB	0.33	0.80	0.80	0.80	0.70	0.60	0.75
	30y JGB	1.23	1.55	1.55	1.55	1.40	1.25	1.35
	2y Swap	0.12	0.30	0.30	0.30	0.20	0.10	0.35
	5y Swap	0.28	0.60	0.60	0.60	0.50	0.40	0.65
	10y Swap	0.59	1.00	1.00	1.00	0.90	0.80	1.00
U.K.	3m Sonia	4.29	4.25	4.25	4.00	3.75		3.50
	2y UKT	3.39	3.50	3.75	3.75	3.50		3.50
	5y UKT	3.30	3.50	3.75	3.75	3.50		3.50
	10y UKT	3.46	3.75	3.75	3.75	3.75		3.75
	30y UKT	3.80	3.75	3.50	3.50	3.50		3.50
	2y Sonia Swap	4.24	4.00	4.00	3.75	3.50		3.50
	5y Sonia Swap	3.75	3.75	3.75	3.75	3.50		3.50
	10y Sonia Swap	3.43	3.50	3.50	3.50	3.50		3.50
Australia	3m BBSW	3.71	3.70	3.60	3.60			3.60
	2y ACGB	3.00	3.40	3.60	3.60			3.50
	5y ACGB	3.10	3.50	3.70	3.70			3.60
	10y ACGB	3.36	3.60	3.80	3.80			3.70
	3y Swap	3.43	3.80	3.90	3.80			3.70
	10y Swap	3.93	4.00	4.10	4.10			4.00
Canada	2y Govt	3.74	3.10	2.90	2.70	2.60		2.40
	5y Govt	3.05	2.60	2.50	2.40	2.40		2.40
	10y Govt	2.92	2.70	2.70	2.70	2.70		2.70
	2y Swap	4.18	3.60	3.40	3.20	3.10		2.90
	5y Swap	3.40	2.90	2.80	2.70	2.70		2.70
	10y Swap	3.34	3.10	3.10	3.10	3.10		3.10

Source: BofA Global Research. US swaps vs overnight Sofr, EUR swaps vs 6M Euribor, Japan swaps vs Tona, GBP swaps vs Sonia, AUD swaps vs BBSW, CAD swaps vs 3M BAs



Acronyms

Exhibit 33: Common acronyms/abbreviationsThis list is subject to change

ronym/Abbreviation	Definition	Acronym/Abbreviation	Definition
1H	First Half	Jan	January
2H	Second Half	Jul	July
1Q/Q1	First Quarter	Jun	June
2Q / Q2	Second Quarter	lhs	left-hand side
3Q / Q3	Third Quarter	m	month
4Q / Q4	Fourth Quarter	MA	Moving Average
ann	annualized	Mar	March
APP	Asset Purchase Programme	MACD	Moving average convergence/divergence
Apr	April	MBM	Meeting-by-meeting
AS	Austria	mom	month-on-month
Aug	August	Mon	Monday
BdF	Banque de France (Bank of France)	MPC	Monetary Policy Committee
BE	Belgium	MWh	Megawatt-hour
BEA	0	NGEU	NextGenerationEU
	Bureau of Economic Analysis		
BLS	Bank Lending Survey	NE N	Netherlands
BoE	Bank of England	Nov	November
BofA	Bank of America	NRRP	National Recovery and Resilience Plan
Bol	Banca d'Italia (Bank of Italy)	NSA	Non-seasonally Adjusted
BoJ	Bank of Japan	OAT	Obligations assimilables du Trésor
BoS	Banco de España (Bank of Spain)	OBR	Office for Budget Responsibility
bp	basis point	Oct	October
BTP	Buoni Poliennali del Tesoro	OECD	Organisation for Economic Co-operation and Development
Buba	Bundesbank	ONS	Office for National Statistics
С	circa	р	preliminary/flash print
CA	Current Account	PBoC	People's Bank of China
CPI	Consumer Price Index	PEPP	Pandemic Emergency Purchase Programme
CSPP	Corporate Sector Purchase Programme	PMI	Purchasing Managers' Index
d	day	PSPP	Public Sector Purchase Programme
GE		PT	<u> </u>
Dec	Germany December		Portugal
		QE	Quantitative Easing
DS	Debt sustainability	qoq	quarter-on-quarter
DXY	US Dollar Index	QT	Quantitative Tightening
EA	Euro area	RBA	Reserve Bank of Australia
EC	European Commission	RBNZ	Reserve Bank of New Zealand
ECB	European Central Bank	rhs	right-hand side
ECJ	European Court of Justice	RPI	Retail Price Index
EFSF	European Financial Stability Facility	RRF	Recovery and Resilience Facility
EGB	European Government Bond	RSI	Relative Strength Index
EIB	European Investment Bank	SA	Seasonally Adjusted
EMOT	Economic Mood Tracker	SAFE	Survey on the access to finance of enterprises
EP	European Parliament	Sat	Saturday
SP .	Spain	Sep	September
ESI	Economic Sentiment Indicator	SMA	Survey of Monetary Analysts / Simple moving average
ESM	European Stability Mechanism	SNB	Swiss National Bank
EU	European Union	SPF	Survey of Professional Forecasters
f		Sun	
·	final print		Sunday
Feb	February	SURE	Support to mitigate Unemployment Risks in an Emergency
Fed	Federal Reserve	S&P	Standard & Poor's
FR	France	Thu	Thursday
Fri	Friday	TLTRO	Targeted Longer-term Refinancing Operations
GC	Governing Council	TPI	Transmission Protection Instrument
GDP	Gross Domestic Product	TTF	Title Transfer Facility
	Gross National Income	Tue	Tuesday
GNI	Greece	UK	United Kingdom
GNI GR			United States
GR	Harmonised Index of Consumer Prices	US	Office States
GR HICP	Harmonised Index of Consumer Prices His Maiesty's Treasury	US UST	
GR HICP HMT	His Majesty's Treasury	UST	US Treasury yield
GR HICP HMT IMF	His Majesty's Treasury International Monetary Fund	UST WDA	US Treasury yield Work-day Adjusted
GR HICP HMT IMF INSEE	His Majesty's Treasury International Monetary Fund National Institute of Statistics and Economic Studies	UST WDA Wed	US Treasury yield Work-day Adjusted Wednesday
GR HICP HMT IMF	His Majesty's Treasury International Monetary Fund	UST WDA	US Treasury yield Work-day Adjusted



Exhibit 33: Common acronyms/abbreviations

This list is subject to change

Acronym/A	Abbreviation	Definition	Acronym/Abbreviation	Definition	
	IG	Investment Grade	DV01	Dollar value of a one basis point change in yield	
	IT	Italy	WAM	Weighted Average Maturity	

Source: BofA Global Research

BofA GLOBAL RESEARCH

Options Risk Statement

Potential Risk at Expiry & Options Limited Duration Risk

Unlike owning or shorting a stock, employing any listed options strategy is by definition governed by a finite duration. The most severe risks associated with general options trading are total loss of capital invested and delivery/assignment risk... all of which can occur in a short period.

Investor suitability

The use of standardized options and other related derivatives instruments are considered unsuitable for many investors. Investors considering such strategies are encouraged to become familiar with the "Characteristics and Risks of Standardized Options" (an OCC authored white paper on options risks). U.S. investors should consult with a FINRA Registered Options Principal.

For detailed information regarding risks involved with investing in listed options: http://www.theocc.com/about/publications/character-risks.jsp

Analyst Certification

I, Ralf Preusser, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.



Disclosures

Important Disclosures

BofA Global Research Credit Opinion Key

BofA Global Research provides recommendations on an issuer's bonds (including corporate and sovereign external debt securities), loans, capital securities, equity preferreds and CDS as described below. Convertible securities are not rated. An issuer level recommendation may also be provided for an issuer as explained below. BofA Global Research credit recommendations are assigned using a three-month time horizon.

Issuer Recommendations: If an issuer credit recommendation is provided, it is applicable to bonds and capital securities of the issuer except bonds and capital securities specifically referenced in the report with a different credit recommendation. Where there is no issuer credit recommendation, only individual bonds and capital securities with specific recommendations are covered. Loans, CDS and equity preferreds are rated separately and issuer recommendations do not apply to them.

BofA Global Research credit recommendations are assigned using a three-month time horizon:

Overweight: Spreads and /or excess returns are likely to outperform the relevant and comparable market over the next three months.

Marketweight: Spreads and/or excess returns are likely to perform in-line with the relevant and comparable market over the next three months.

Underweight: Spreads and/or excess returns are likely to underperform the relevant and comparable market over the next three months.

BofA Global Research uses the following rating system with respect to Credit Default Swaps (CDS):

Buy Protection: Buy CDS, therefore going short credit risk. **Neutral:** No purchase or sale of CDS is recommended. **Sell Protection:** Sell CDS, therefore going long credit risk.

One or more analysts contributing to this report owns bonds of the covered issuer: UK, US

BofAS or an affiliate was a manager of a public offering of securities of this issuer within the last 12 months: France, Germany, Italy, UK.

The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: France, Germany, Italy, UK.

BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: France, Germany, Italy, UK.

The issuer is or was, within the last 12 months, a non-securities business client of BofAS and/or one or more of its affiliates: France, Germany, Italy, UK.

BofAS or an affiliate has received compensation for investment banking services from this issuer within the past 12 months: France, Germany, Italy, UK.

BofAS or an affiliate expects to receive or intends to seek compensation for investment banking services from this issuer or an affiliate of the issuer within the next three months: France, Germany, Italy, UK.

BofAS or one of its affiliates has a significant financial interest in the fixed income instruments of the issuer. If this report was issued on or after the 15th day of the month, it reflects a significant financial interest on the last day of the previous month. Reports issued before the 15th day of the month reflect a significant financial interest at the end of the second month preceding the report: France, Germany, UK.

BofAS or one of its affiliates trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of this research report: France, Germany, Italy, UK.
The issuer is or was, within the last 12 months, a securities business client (non-investment banking) of BofAS and/or one or more of its affiliates: France, Germany, Italy, UK.
Due to the nature of the market for derivative securities, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

Due to the nature of strategic analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

BofA Securities fixed income analysts regularly interact with sales and trading desk personnel in connection with their research, including to ascertain pricing and liquidity in the fixed income markets

Other Important Disclosures

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

This report may refer to fixed income securities or other financial instruments that may not be offered or sold in one or more states or jurisdictions, or to certain categories of investors, including retail investors. Readers of this report are advised that any discussion, recommendation or other mention of such instruments is not a solicitation or offer to transact in such instruments. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor for information relating to such instruments. Rule 144A securities may be offered or sold only to persons in the U.S. who are Qualified Institutional Buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended. SECURITIES OR OTHER FINANCIAL INSTRUMENTS DISCUSSED HEREIN MAY BE RATED BELOW INVESTMENT GRADE AND SHOULD THEREFORE ONLY BE CONSIDERED FOR INCLUSION IN ACCOUNTS QUALIFIED FOR SPECULATIVE INVESTMENT.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

The securities or other financial instruments discussed in this report may be traded over-the-counter. Retail sales and/or distribution of this report may be made only in states where these instruments are exempt from registration or have been qualified for sale.

Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

This report, and the securities or other financial instruments discussed herein, may not be eligible for distribution or sale in all countries or to certain categories of investors, including retail investors.

Refer to BofA Global Research policies relating to conflicts of interest.

"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.

Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Research Reports:

BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudential et de Résolution (ACPR) and



regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at www.bofaml.com/BofASEdiscalaimer; BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSFC); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Investment Industry Regulatory Organization of Canada; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (S

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securiti

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities. This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

This report may contain a trading idea or recommendation which highlights a specific identified near-term catalyst or event impacting a security, issuer, industry sector or the market generally that presents a transaction opportunity, but does not have any impact on the analyst's particular "Overweight" or "Underweight" rating (which is based on a three month trade horizon). Trading ideas and recommendations may differ directionally from the analyst's rating on a security or issuer because they reflect the impact of a near-term catalyst or event.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information. In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright and General Information:

Copyright 2023 Bank of America Corporation. All rights reserved. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global



Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities. Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.



Research Analysts

Europe

Ralf Preusser, CFA Rates Strategist MLI (UK) ralf.preusser@bofa.com

Mark Capleton Rates Strategist MLI (UK)

mark.capleton@bofa.com

Sphia Salim Rates Strategist MLI (UK)

sphia.salim@bofa.com

Ronald Man

Rates Strategist

MLI (UK) ronald.man@bofa.com

Erjon SatkoRates Strategist
BofASE (France)
erjon.satko@bofa.com

Agne Stengeryte Rates Strategist MLI (UK) agne.stengeryte@bofa.com

US

Ralph Axel Rates Strategist BofAS ralph.axel@bofa.com

Bruno Braizinha, CFARates Strategist
BofAS
bruno.braizinha@bofa.com

Mark Cabana, CFA Rates Strategist BofAS

BofAS mark.cabana@bofa.com Paul Ciana, CMT

Technical Strategist BofAS paul.ciana@bofa.com

Katie Craig Rates Strategist

BofAS katie.craig@bofa.com

Meghan Swiber, CFA Rates Strategist BofAS meghan.swiber@bofa.com

Anna (Caiyi) Zhang Rates Strategist BofAS caiyi.zhang@bofa.com

Pac Rim

Shusuke Yamada, CFA FX/Rates Strategist BofAS Japan shusuke.yamada@bofa.com

Tomonobu Yamashita Rates Strategist BofAS Japan tomonobu.yamashita@bofa.com

Oliver Levingston Rates Strategist Merrill Lynch (Australia) oliver.levingston@bofa.com

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

