

Global Rates Viewpoint

Global rates mid-year: sufficiently resilient

The Godot recession in action

At the global level the main surprise versus our year ahead views from last year (see Global Rates Year Ahead, 20 November 2022) is the resilience of the US economy. As a result, our US economists revised their forecasts for a later recession, a higher terminal rate and later cuts. At the global level this implies for us an upward revision to near-term rate forecasts, more prolonged curve inversions, and a less pronounced outperformance of USD rates vs EUR for the remainder of the year.

US – surprisingly resilient: higher front end, flatter curve

Our US economists recently pushed out the timing of their recession call, pencilled in more Fed hikes and slightly pushed out timing of rate cuts. We reflect these views in updated rates forecasts and views. The most notable shift: (1) higher fed funds path = higher rate forecasts & a flatter curve; (2) UST cheapening risks with increased supply and softer demand backdrop; and (3) 2Y spread carry longs trade.

Euro Area – defying gravity for a little longer

We maintain a near-term bearish bias on economic momentum not being as weak as suggested by surprise indices, ECB likely remaining hawkish for longer than priced, and meaningful supply pressures in the context of investors having flipped long. Medium term, there is considerable potential for a belly-led rally as markets return to more sensible neutral rate estimates.

UK – maintaining a bearish bias

Investors are short the UK cross market and BoE pricing is more hawkish than our forecasts, but we remain worried about Gilt underperformance. Supply will remain an issue in Q3, macro vulnerabilities remain pronounced, and scope for cuts more limited than elsewhere even towards the end of the forecast horizon.

Australia – behind the curve

Since our last update three months ago, the RBA has delivered two surprise hikes. The RBA's hawkish turn has fuelled a sell-off in rates, and we have upgraded our forecasts for yields over the next few quarters. The outlook for year-end 2024 remains the same but we now see much higher yields in the belly of the curve in H2 23 and forecast a more aggressive rally from Q1 24 as investor concerns shift from inflation to growth.

Japan – in thrall to BoJ policy changes

Despite considerable uncertainty, we expect supply-demand factors to remain the main driver of the JGB market through end-2024, with upward pressure on yields. Our view reflects the uptrend in JGB issuance by the Ministry of Finance (MoF) in line with the Japanese government's loose fiscal policy, and the potential for the Bank of Japan (BoJ) to begin normalizing monetary policy as early as within FY23. Our 10yr JGB yield forecasts are 0.70% at end-2023 and 0.80% at end-2024.

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 15 to 16. Analyst Certification on page 13. 12570352

Timestamp: 15 June 2023 01:40AM EDT

15 June 2023

Rates Research
Global

Table of Contents

US	2
Euro Area	4
UK	6
Australia	8
Japan	10
Appendix: Common acronyms	12
Research Analysts	16

Global Rates Research
MLI (UK)

Ralf Preusser, CFA
Rates Strategist
MLI (UK)
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

See Exhibit 20 for definitions of common abbreviations and terms used in our reports.

For a list of our trade recommendations and those trades closed in the past 12 months please see the latest [Global Rates Weekly](#).

US

Mark Cabana, CFA

BofAS
mark.cabana@bofa.com

Meghan Swiber, CFA

BofAS
meghan.swiber@bofa.com

Bruno Braizinha, CFA

BofAS
bruno.braizinha@bofa.com

Ralph Axel

BofAS
ralph.axel@bofa.com

Surprisingly resilient

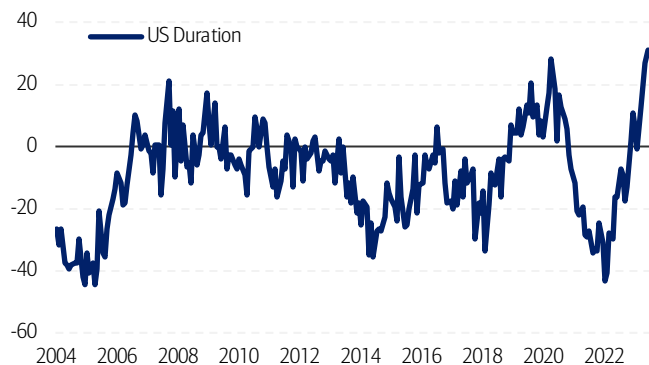
In our Year Ahead publication we wrote: “macro uncertainty to decline in ‘23. Lower uncertainty ... because: slower pace of Fed hikes / eventual pause, falling though still high inflation, softening labor market, USTs regaining their risk-off hedge value... Rates to move past their peak & decline in ‘23, vol to drop, real rates to fall, spread curve likely steeper.”

We have learned 3 key things since our Year Ahead:

- **US macro resilience:** A strong macroeconomic backdrop has extended uncertainty / volatility. Our economists still hold a mild recession call but have pushed out the timing of it to 1H '24 (see Resilient economy, higher policy rates, [14 June 2023](#)). They now expect two additional Fed rate hikes in July and Sept. A strong economy and Fed hikes will keep nominal and real rates high + curve flat.
- **US banking system fragility:** We expected increased bank competition for funding with Fed QT & higher overnight rates. We did not expect large bank failures and emergency Fed lending. Banking concerns are likely to encourage the Fed to go slower, which reduces hard landing risk. Slower Fed = fewer cuts in '24.
- **UST long positioning is extended:** USTs appear to have already re-gained risk-off hedge value via stretched asset manager longs. We worry that a resilient economy could result in a reduction of these positions and result in soft longer-dated demand. Risk to cheaper USTs if demand is weak amidst growing bill and coupon supply.

Exhibit 1: UST duration overweight now exceed the April 2020 pandemic highs

US duration longs extend further in June versus May for a new post-2004 high

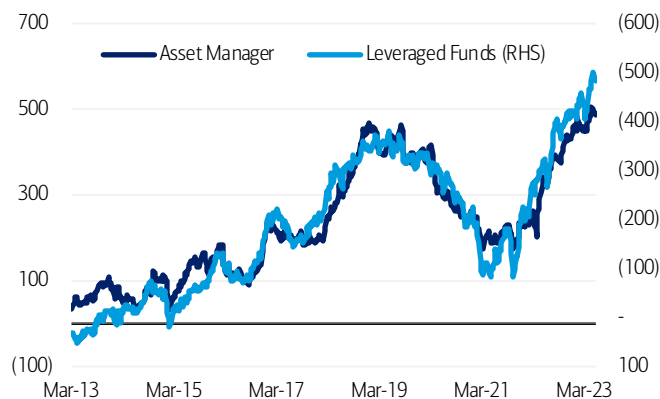


Source: BofA Global Research FX and Rates Sentiment Survey

BofA GLOBAL RESEARCH

Exhibit 2: Asset manager and leveraged fund positioning (10y equivalent, \$bn)

Asset manager longs correspond with leveraged fund shorts



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Key changes: forecast revisions & curve move

The lessons learned above have resulted in the following changes:

- **Forecasts:** We revise our front-end rate forecasts higher with more Fed hikes expected by our economists. We also nudge up our end '23 10Y forecast by 25bps to 3.5%, reflecting a longer period of macro resilience (Exhibit 3).

In 2H23 our short rates forecasts are modestly above the forwards and above consensus; by early '24 our forecasts across the curve are below the forwards and consensus in line with our US economists' continued call for a mild recession and Fed cuts in '24. QT stops with cuts.

- **Curve:** We have lower conviction on the curve. The 2s10s curve is biased flatter near term with additional rate hikes but should quickly shift steeper with signs of labor moderation. Popular forward starting curve steepeners make positioning vulnerable. Any steepener is less risky in 5s30s vs 2s10s given additional Fed hike risk.

What we got right:

- **Duration:** US rates have largely been in a range during 1H '23. This is especially true for the 10Y between 3.25% and 4%. Clients that traded tactically with a bullish rate bias have likely done reasonably well. We hold this guidance in 2H23. We also recognize it may take longer for the range to shift lower vs our prior expectation.
- **Front end spreads:** We expected short-dated UST cheapening with bill supply wave after debt limit. We were early on this theme in late '22 (see: [US front end in '23](#)). Debt limit was resolved slightly earlier than we anticipated in late '22, but the overall supply, spread, and spread curve story was right.

Exhibit 3: US rate forecasts & changes

We revise rates higher, especially at the front end; most UST curves are also flatter vs prior forecast

	New Forecast (%)							Old Forecast (%)					Change				
	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24	4Q25	3Q23	4Q23	1Q24	2Q24	4Q24	3Q23	4Q23	1Q24	2Q24	4Q24
2y Govt	4.50	4.25	3.85	3.50	3.25	3.00	3.00	3.75	3.50	3.25	3.00	2.75	0.75	0.75	0.60	0.50	0.25
5y Govt	4.00	3.90	3.65	3.45	3.25	3.15	3.15	3.45	3.40	3.25	3.10	3.00	0.55	0.50	0.40	0.35	0.15
10y Govt	3.60	3.50	3.40	3.35	3.30	3.25	3.25	3.35	3.25	3.25	3.25	3.25	0.25	0.25	0.15	0.10	0.00
30y Govt	3.80	3.75	3.70	3.70	3.70	3.70	3.70	3.55	3.40	3.40	3.45	3.50	0.25	0.35	0.30	0.25	0.20
2s10s	-0.90	-0.75	-0.45	-0.15	0.05	0.25	0.25	-0.40	-0.25	0.00	0.25	0.50	-0.50	-0.50	-0.45	-0.40	-0.25
5s30s	-0.20	-0.15	0.05	0.25	0.45	0.55	0.55	0.10	0.00	0.15	0.35	0.50	-0.30	-0.15	-0.10	-0.10	0.05
10s30s	0.20	0.25	0.30	0.35	0.40	0.45	0.45	0.20	0.15	0.15	0.20	0.25	0.00	0.10	0.15	0.15	0.20

Source: BofA Global Research

BofA GLOBAL RESEARCH

Bottom line: US macro resilience, roll forward of recession timing, and more Fed hikes result in higher rates and a flatter curve path. We revise forecasts at the front end and only modestly at the back end. To trade, tactical duration longs are easier than curve at this stage of cycle. We prefer front-end underweights, long 10Y at or above 4%, 2Y spread carry, and vol normalization. UST supply / demand imbalance is a risk for cheaper USTs.



Euro Area

Sphia Salim

MLI (UK)

sphia.salim@bofa.com

Ronald Man

MLI (UK)

ronald.man@bofa.com

Erjon Satko

BofASE (France)

erjon.satko@bofa.com

EUR rates: defying gravity for a little longer

We raise our near-term euro rates forecasts and lower our long(er) term forecasts (Exhibit 4). We see 10Y German bonds at 2.25% in end-2023 and 1.90% in end-2024 (vs 2.20% previously on both dates). We also set the forecast at 1.60% for end-2025. The upward revisions to our near-term forecasts reflect risks of a higher terminal rate than what is priced in by the market and a later start to the cutting cycle. The downward revisions reflect our economists' inflation forecast falling below the European Central Bank's (ECB's) target in 2025. Renewed concerns regarding a de-anchoring of inflation to the downside may prompt a downward reassessment of neutral rates and long-term inflation expectations in the euro area, providing scope for further decline in rates.

Near term (next 2-3 months): bearish bias

For the next few months, we maintain a bearish bias, especially at the front-end, expect bear flattening pressures, and a cheapening of German bonds vs swaps due to:

- **Data.** Our economists showed hard economic data have been resilient even as soft data, such as manufacturing PMIs, signalled a serious contraction (Exhibit 5, and [Europe Economics Weekly, 9-Jun-23](#)). This means risks on economic activity are skewed to the upside, with consensus being too optimistic only for 2H24 onwards.
- **Inflation and ECB reaction function.** Near term, we think inflation will be sticky, with core prints still above 5% by the July meeting. Inflation is also expected to be above the ECB's inflation target at least through 2024. This may challenge the market's pricing of a 25bp rate cut by the ECB by April 2024.
- **Supply.** We forecast core supply to be elevated in 3Q 2023: net German supply will exceed €50bn, equivalent to one-third of Germany's annual net supply (Global Rates Weekly 26-May-23). This may be a challenge for the market to absorb as positioning is already long ([FX & Rates Sentiment Survey, 9-Jun-23](#)), while growth in the euro area and US remains firm and central banks including the Fed continue hiking.

Exhibit 4: BofA EUR rates forecast profile

We raise our near-term forecasts and lower our long(er) term forecasts

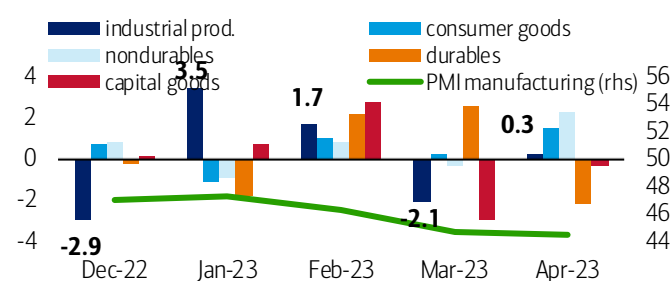
	Q3 23	Q4 23	Q1 24	Q2 24	YE 24	YE 25
3m Euribor	3.80	3.90	3.80	3.60	3.20	2.20
2y BKO	2.90	2.65	2.45	2.30	1.90	1.40
5y OBL	2.45	2.15	2.05	2.00	1.75	1.50
10y DBR	2.40	2.25	2.15	2.10	1.90	1.60
30y DBR	2.40	2.40	2.40	2.40	2.25	2.00
2y Euribor swap	3.60	3.35	3.10	2.90	2.40	1.80
5y Euribor swap	3.10	2.80	2.65	2.50	2.15	1.80
10y Euribor swap	3.00	2.80	2.65	2.55	2.30	1.90

Source: BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 5: Germany: industrial production and PMI

Production is more resilient than tanking PMIs would suggest



Source: Destatis, S&P, BofA Global Research

BofA GLOBAL RESEARCH

Medium term (4Q23 to 4Q24): evolving rally

We expect rates to rally after the terminal rates are reached. The pricing of cuts and slow grind lower in the market's view of neutral can put bull flattening pressures on the curve initially. As we approach delivery of the rate cut, the dynamics of the curve is expected to evolve to bull steepening, first in 2s10s and then in 2s5s. Our economists expect the first cut to be delivered only in Jun-24, and this, in part, explains why our forecast implies less steepening than what the market is pricing in 1y ahead (Exhibit 6).

We also expect 5y5y Euribor swaps to rally but by a lesser extent, reflecting inflation in that period still expected to be above target and growing term premia in the curve against the backdrop of ongoing quantitative tightening (QT). The availability of bond supply, supported by QT, also leaves us with a bias for further asset swap tightening.

For the periphery, very high demand from retail investors (see report: Retail flows into EGBs accelerating, but headwinds may appear 24 May 2023) vs limited net government bond supply (relative to core) can help justify the benign market reaction to the growth deceleration and tightening of monetary conditions. Expectations of a soft landing have also helped the periphery, like other risk assets. As inflation drops faster than policy rates in 2024, the narrative about a hard landing or a policy mistake may gather steam, weighing on risk sentiment, potentially pushing periphery spreads wider. Support from retail demand will also hinge on the outright yields.

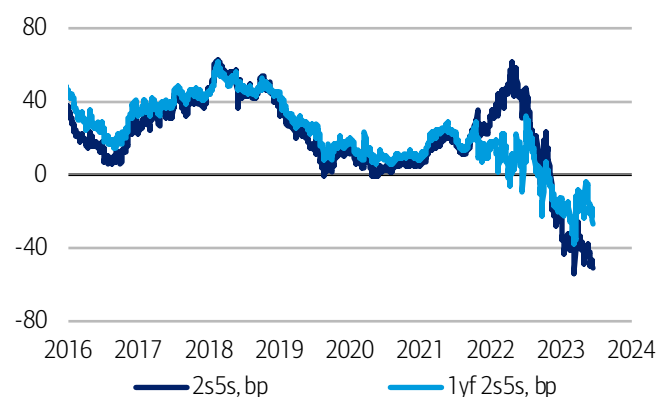
Long term (2025): back to pre-COVID?

Our economists forecast inflation to fall to 1.5% in 2025, clearly below the ECB's target. In our view, this may prompt the 5y5y Euribor swap rate to fall towards 2%. In this environment, the market may also reassess the neutral rate for the euro area from the 2% that the ECB has been guiding us toward and to a lower level of between 1.25% and 1.75%. This may provide scope for further declines in rates, and is reflected in our 2y, 5y, and 10y swap forecasts for end-2025 being c. 100bp below the forwards. There are two-way risks to our long-term view:

- **Downside:** A de-anchoring of inflation to the downside and repricing of neutral rates towards what was expected pre-COVID could drive the market to price cuts below 1% and take 5y5y Euribor swaps to 1.5% (Exhibit 7). 10y swaps would decline sub 1.5%. An even lower rate may be tested if the ECB considers restarting QE.
- **Upside:** Persistent inflation, with the ECB ready to tolerate it around 2.5%, could cause the trough in rates to be above 2% and 5y5y Euribor swaps stay above 2.5%. 10y swaps would stay above 2.5%, where they are when the ECB starts cutting.

Exhibit 6: 2s5s Euribor and 1yf 2s5s Euribor

Our forecasts imply 2s5s at -40bp by mid '24, i.e., steeper than spot but less so than what forwards point to

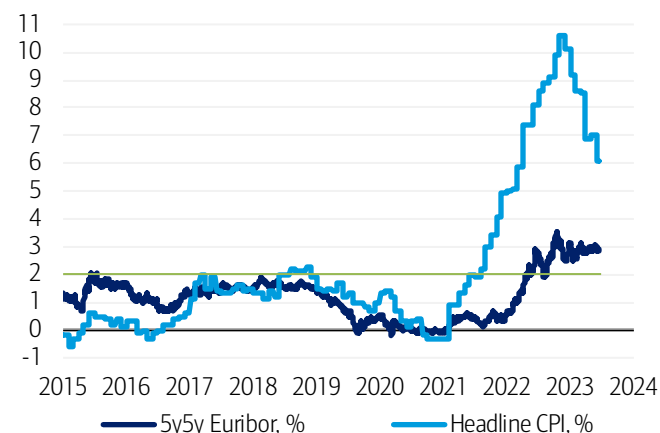


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 7: Headline CPI and 5y5y Euribor

Neutral rate may be reassessed downwards if inflation is below target again



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

UK

Agne Stengeryte

MLI (UK)

agne.stengeryte@bofa.com

Mark Capleton

MLI (UK)

mark.capleton@bofa.com

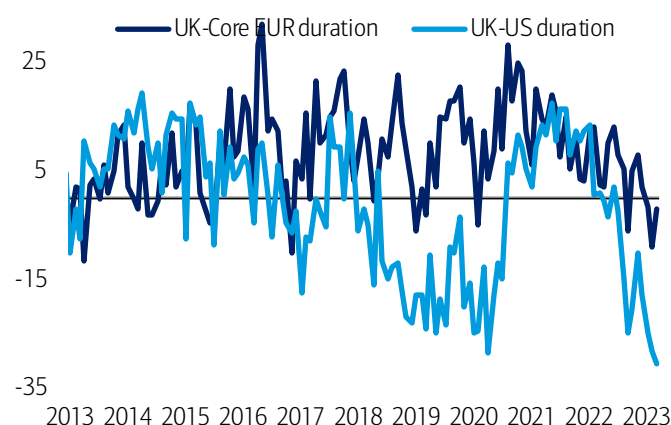
Maintaining a bearish bias

In our Year Ahead publication, we outlined our bearish bias in UK rates, relative to the forwards and other markets, emphasizing: (1) the increasing dependency on the kindness of strangers (the need for overseas investors to buy even more Gilts than they have been buying); (2) the negative feedback loop between an increasing shortfall in the Bank of England (BoE) Gilt portfolio and the deficit increasing losses crystalized on sales; and (3) what was then a burgeoning current account deficit with a deteriorating International Investment Position (IIP).

In Q1, UK rates fluctuated in a range and mostly in line with moves in the US. Q2 saw our expectations play out above and beyond, with 10y yield Gilts almost 1% higher outright and 65bp higher relative to 10y USTs since the end of March. We have revised our forecasts upwards several times since in light of these sharper-than-expected market moves. Investors appear to be short the UK cross market into Q3 (Exhibit 8) and BoE pricing is more hawkish than our forecasts (Exhibit 9), but we remain worried about Gilt underperformance. Near term, supply will remain an issue into Q3. Macro vulnerabilities will remain pronounced in both the near-and medium-term. And scope for Bank rate cuts to our forecast horizon seems more limited in the UK than elsewhere.

Exhibit 8: UK-Core Europe/US Duration Exposure

UK vs Core EUR, US Bull-Bear rates exposure spread

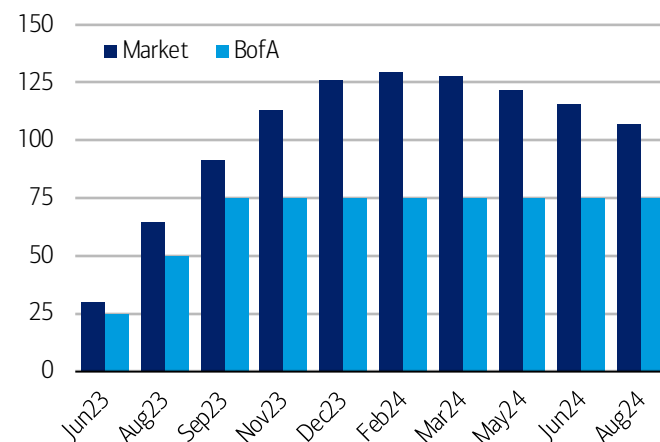


Source: BofA Global Research FX and Rates Sentiment Survey

BofA GLOBAL RESEARCH

Exhibit 9: MPC-dated Sonia Bank Rate hike exp. vs. BofA f'casts, bp

Market pricing more than our own expectation



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

10y Sonia at 4.5% in Q4 2023 and 4.25% in Q4 2024

As we approach H2 2023, our concerns remain the same and we maintain a bearish bias on UK rates. Our 10y Sonia yield forecasts of 4.5% for Q4 2023 and 4.25% for Q4 2024 are 20-30bp above the forwards (Exhibit 10 and Exhibit 11). A 25bp 10y Sonia rally that we have in our forecasts implies small underperformance vs. what we expect for the US.

2y Sonia at 5% for Q4 2023 and 4% for Q4 2024 is some 5-10bp below the forwards on average over the forecast horizon, reflecting our BoE base case scenario. Our Chief UK Economist, Rob Wood, expects three more 25bp Bank rate hikes by September and Bank rate remaining at that level until late 2024. We expect once per quarter easing in 2025.

In the near-term, monthly Gilt issuance will reach a peak in July, which is a material risk to Gilt yields during the quieter summer months. More long end supply in Q3 means more risk to be supplied relative to the previous quarter and limited scope for short-dated Gilt underperformance in the near term, although we pencil in some in late 2023 (we see it as likely that the Autumn Statement adds to the skew shorter in Gilt sales) and towards the end of the new fiscal year. Fiscal risks are high for 2024/25, we think.

Exhibit 10: BofA Gilt yield forecasts, %

10y Gilt to end 2024 at 4.5%

	Gilts		
	Q4 2023	Q4 2024	Q4 2025
Bank rate	5.25	5.00	4.00
2y	4.75	4.00	3.00
5y	4.25	3.75	3.25
10y	4.75	4.50	4.50
30y	5.25	5.00	5.00

Source: BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 11: BofA Sonia yield forecasts, %

10y Sonia to end 2024 at 4.25%

	Sonia		
	Q4 2023	Q4 2024	Q4 2025
3m Sonia	5.25	4.75	3.75
2y	5.00	4.00	3.00
5y	4.25	3.75	3.25
10y	4.50	4.25	4.25
30y	4.50	4.25	4.25

Source: BofA Global Research

BofA GLOBAL RESEARCH

The case for retail 'discovering' Gilts is getting stronger

We approach the summer light on trade ideas, having just closed 1y forward 1s3s Sonia curve flattener at target (1y forward 1s3s Sonia flattener reaches target, 13 June). We closed a 2s20s ASW curve steepener a short while ago as Gilt supply will turn longer in Q3 (Rates – UK section of [Hop, skip & a supply jump](#), 2 June). We see ASW flattening resuming later in the year.

In November, we noted that the tax efficiency of low coupon Gilts should attract retail interest, driving an RV wedge between neighbouring Gilts with different coupons. This

was and remains accentuated in a post-QE environment of superabundant liquidity, where banks do not feel compelled to compete aggressively for retail term deposits. Note, we do not give tax advice and we do not give any investment advice for retail investors, and nothing in this note should be construed as such. Since we wrote in November, Gilt yields have risen substantially. The tax advantage goes up as yields rise, so we think it's worth reiterating:

- Sell UKT 4.125% 2027 Gilt vs. UKT 0.125% 2028 (Will retail discover Gilts? A little bit complicated maybe, but not too taxing 10 November 2022). Entry: 1.8bp (ois z-spread basis). Current: -13bp. Target: -25bp. Stop: +12bp. Risk to the trade is that the new Gilt accrues a strong benchmark premium.

Playing for inflation persistence

It has become a consensus view that the UK has an inflation problem that is distinctly worse than its developed market peers. That is apparent in the inflation numbers themselves, which have repeatedly surprised to the upside, and in wage data (with private sector regular pay accelerating to 7.9% in April), resulting from a tight labour market.

Our preference to be long breakevens is now restricted to the ultra-long end of the curve. Here, we see additional value in the convexity contribution, and from the fact that although net issuance is very large in Gilts overall, this fiscal year, this is not the case for linkers (with a large redemption late in the year).

Our bigger play on inflation persistence as a problem is in real yields. A lot of the inflation is priced in the inflation curve, but not the required tightness in monetary policy (prospective real policy rates) to tackle it, we would argue. We therefore argue for paying forward real rates beyond a four- to five-year horizon.

Australia

Oliver Levingston

Merrill Lynch (Australia)

oliver.levingston@bofa.com

Behind the curve

Since our last update to the forecast three months ago, the RBA has delivered two surprise hikes. The central bank's hawkish turn has fuelled a sell-off in rates and we have upgraded our forecasts for yields over the next few quarters. We also now forecast a more aggressive rally from the first quarter of 2024 as growth concerns mount and the RBA moves to cut policy rates by year-end (Exhibit 12).

The outlook for year-end 2024 remains the same, but we now see much higher yields in the belly of the curve in H2 23 but forecast a more aggressive rally from Q1 24 as investor concerns shift from inflation to growth.

Exhibit 12: New forecasts – cheaper rates in 2023, sharper rally in 2024

Hard landing looks more likely as terminal cash rates reprice higher

	Q3 23	Q4 23	Q1 24	Q2 24	Q3 24	Q4 24	Q4 25
2y	4.3	4.1	3.3	2.8	2.5	2.25	2.5
5y	3.9	3.8	3.4	3.0	2.75	2.50	2.25
10y	3.7	3.6	3.5	3.2	3.0	2.75	2.5
30y	3.8	3.7	3.6	3.5	3.4	3.25	3.0

Exhibit 12: New forecasts – cheaper rates in 2023, sharper rally in 2024

Hard landing looks more likely as terminal cash rates reprice higher

	Q3 23	Q4 23	Q1 24	Q2 24	Q3 24	Q4 24	Q4 25
--	-------	-------	-------	-------	-------	-------	-------

Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Fade the soft landing in 2023, buy duration for 2024

The risk of a hard landing is growing, and we like long duration trades at these levels. 2y ACGBs have cheapened more than 100bps in two months and our macro framework suggests the belly of the curve should rally from here (see Global Rates Weekly: Commonwealth Surprise 09 June 2023, p11). Yet the RBA's slower pace of hikes in 2022/23 has meant that cash rates are still more than 100bps lower than in the US and NZ, and more than 50bps below the UK and Canada.

We see further cheapening in the belly of the curve as likely in the near term given that the RBA has shifted its focus from preserving gains in the labour market to tackling inflation expectations and preventing a premature easing of financial conditions. On the flipside, breakevens have remained well contained during this rally, leaving real rates to lead the cheapening of nominal bonds over the past 90 days (Exhibit 13).

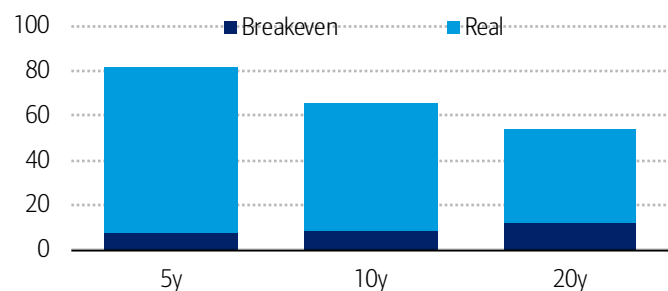
Even though we see the curve as likely to flatten further over the coming months, it is difficult to say with certainty when investors will start pricing in the end of the cycle by adding curve steepeners, so the risk/reward of the trade is less asymmetric than we would like. Given that the 3s10s curve has flattened significantly and steeper forwards align with our forecast for a more aggressive rally in 2024, we prefer adding duration as a way to position for a higher probability of a hard landing in 2024 (Exhibit 14).

Overshooting neutral

The neutral rate is the cash rate at which RBA policy is neither accommodative nor tight. As Assistant RBA Governor Luci Ellis notes, short-run and long-run neutral rates can diverge (see The Neutral Rate: The Pole-star Casts Faint Light, 12 October 2022). We estimate neutral cash rates by using global term premia and local bond yields to solve for 5y5y forward rates. While this approach results in a more volatile estimate of neutral rates, it is useful at the end of a cycle when the RBA is attempting to engineer sufficiently restrictive policy. This method suggests the neutral cash rate is around 4%, which means the RBA has now entered restrictive territory (Exhibit 15).

Exhibit 13: Real rates have led cheapening of nominals over past 90d

Lower real rates in 2024 likely to lead to richer duration, in our view

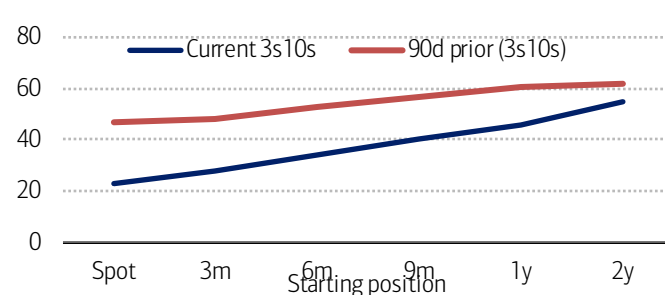


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 14: Market now pricing a more aggressive steepening

3s10s likely to steepen as cycle matures



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

The RBA has been roughly in line with neutral rates in 2023 but hiking cycles usually do not conclude until the RBA has meaningfully overshot neutral. At the end of the hiking cycle in 2011, the cash rate overshot 5y5y neutral rates by as much as 77bps, with an average of around 30bps for the period that the RBA was on hold (Exhibit 16). In 2002-08, the overshoot was closer to 100bps.

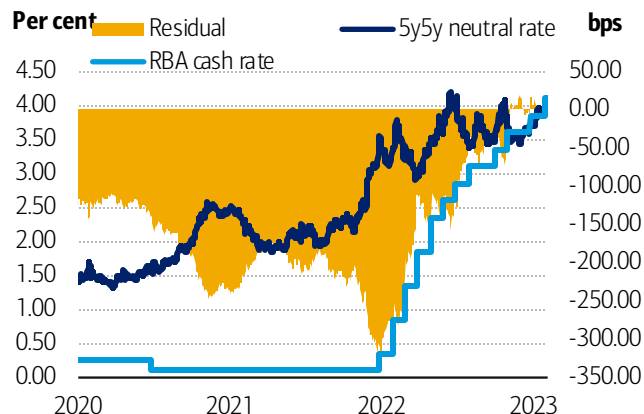
We see the speed of this cycle as a reason to expect a lower overshoot. Our economists



see at least one more hike before the end of the cycle with the next rate increase pencilled in for July. OIS markets are also pricing a terminal of around 4.5%, suggesting an overshoot roughly in line with the 2011 cycle. Given that terminal rates are not too far from current levels, adding duration looks attractive at these levels.

Exhibit 15: Neutral cash rate around 4%

RBA is slightly above neutral but probably needs to overshoot

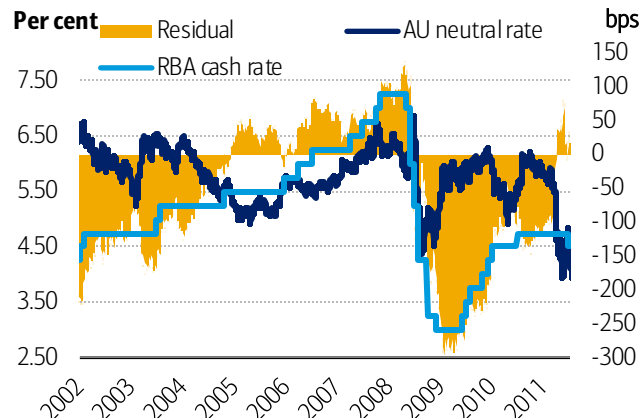


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 16: Overshooting of c. 30-80bps required in previous cycles

RBA usually adopts a restrictive policy at the end of the cycle



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

QT risk unlikely to lead 10y yields significantly higher

A potential active quantitative tightening (QT) program, which we forecast to begin in October, is likely to weigh on long-duration bonds and presents a risk to our forecast for richer 10y bonds (see Australia Rates Viewpoint: Ready to receive: receive 10y swap EFP as RBA mulls bond sales 17 May 2023). The exact impact of active QT (bond sales) on yields is difficult to estimate, especially given that the RBA's pandemic-era bond purchases were more concentrated in shorter tenors than comparable central banks. However, a Bank for International Settlements paper published last week suggests USD 215bn of QT should increase long-term yields by 10bps. The RBA only holds around USD 180bn (AUD 270bn) of ACGBs and they will not dispose of them all at once, which suggests a QT program is unlikely to be significant driver of price action.

Japan

Tomonobu Yamashita

BofAS Japan

tomonobu.yamashita@bofa.com

Shusuke Yamada, CFA

BofAS Japan

shusuke.yamada@bofa.com

In thrall to BoJ policy changes

Despite considerable uncertainty, we expect supply-demand factors to remain the main driver of the JGB market through end-2024, with upward pressure on yields. Our view reflects the uptrend in JGB issuance by the Ministry of Finance (MoF) in line with the Japanese government's loose fiscal policy, and the potential for the Bank of Japan (BoJ) to begin normalizing monetary policy as early as within FY23. Our 10yr JGB yield forecasts are 0.70% at end-2023 and 0.80% at end-2024 (Exhibit 17).

Exhibit 17: BofA JGB yield forecasts

Forecast 0.70% at end-2023, 0.80% at end-2024

(%, EOP)	23Q3	23Q4	24Q1	24Q2	24Q3	24Q4	25Q4
2y Govt.	0.05	0.00	-0.05	-0.05	0.20	0.20	0.30

Exhibit 17: BofA JGB yield forecasts

Forecast 0.70% at end-2023, 0.80% at end-2024

(%, EOP)	23Q3	23Q4	24Q1	24Q2	24Q3	24Q4	25Q4
5y Govt.	0.40	0.35	0.25	0.25	0.50	0.50	0.60
10y Govt.	0.80	0.70	0.60	0.60	0.80	0.80	0.90
20y Govt.	1.25	1.10	1.00	1.00	1.15	1.15	1.25
30y Govt.	1.50	1.35	1.20	1.20	1.35	1.35	1.40
40y Govt.	1.65	1.50	1.35	1.35	1.50	1.50	1.55
2y Swap	0.20	0.15	0.05	0.05	0.30	0.30	0.35
5y Swap	0.45	0.40	0.30	0.30	0.60	0.60	0.65
10y Swap	0.85	0.80	0.65	0.65	0.90	0.90	0.95

Source: BofA Global Research

BofA GLOBAL RESEARCH

Monetary policy: Expect YCC/NIRP exit in mid-2024

Our Japan economists expect the BoJ to shorten the target maturity for YCC (yield curve control) from ten years to five at its July 2023 monetary policy meeting (MPM), and do not expect it to exit YCC or NIRP (negative interest rate policy) until mid-2024 (for details, see [Japan Watch: BoJ review: Continuity and difference 28 April 2023](#)). As we discuss below, MOF's JGB issuance is increasing, and a change in BoJ policy would likely drive higher JGB yields.

Two-step process: YCC changes, followed by exit

If the BoJ adjusts and then discontinues YCC in line with our forecasts, we would expect yields to rise mainly for the 10yr and shorter maturities that make up a relatively high percentage of the BoJ's holdings. However, as we discuss below, the BoJ's forward guidance includes a policy of expanding the monetary base, and we would not expect it to drastically reduce JGB purchases even if it adjusts or abandons YCC as per our forecasts. Past statements by former Governor Haruhiko Kuroda and the BoJ's Financial System Report suggest that the BoJ may favor a steep curve, and we expect purchases of 10yr and shorter maturities to remain relatively high even after it adjusts YCC (although there is considerable uncertainty about this).

No rate-hiking cycle

We expect the BoJ to return its target for financial market operations to a short-term interest rate of 0-0.1% in mid-2024, in other words ending its negative interest rate policy in summer 2024. However, Japan's relatively low inflation makes a string of rate hikes by the BoJ unlikely at this point, in contrast to other major countries and regions, and we would not expect excessive bear-flattening of the JGB curve.

JGB purchases depend on changes to forward guidance

We expect the BoJ to maintain a milder form of QE over the longer term even after it exits YCC and NIRP, and view forward guidance as the key point in gauging its future JGB purchases. The BoJ maintained forward guidance indicating its policy of expanding the monetary base in its April MPM statement¹. Roughly ¥6.5tn in JGBs held by the BoJ are scheduled for redemption each month from July through end-March 2024, and ¥5.4tn from April 2024 through end-March 2025 (Exhibit 19). It will therefore need to continue purchasing around ¥6-7tn per month unless it revises its forward guidance² (for details, see Japan Rates Watch: Expect only limited reduction in BoJ purchases after YCC adjustment 11 May 2023).

The BoJ announced at its April 2023 MPM that it will conduct a broad-perspective review of its monetary policy over the next 12-18 months (to be completed in Apr-Oct

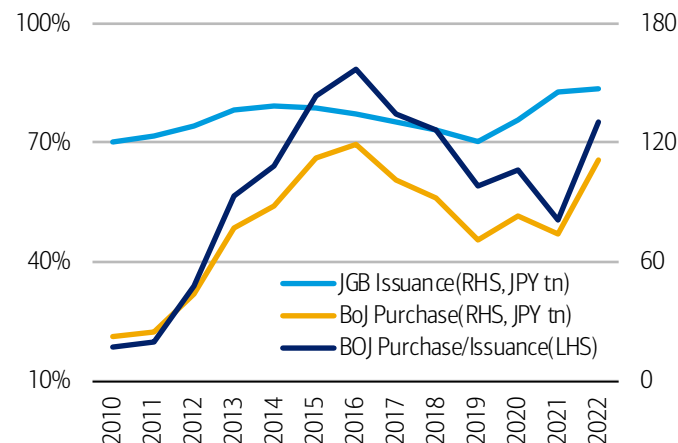
¹ "The Bank commits to continuing to expand the monetary base until the year-on-year rate of increase in the observed CPI exceeds 2 percent and stays above the target in a stable manner."

² The BoJ bought ¥8.0tn in April and ¥7.4tn in May.

2024). While this could lead it to revise or discontinue its current forward guidance, visibility remains poor.

Exhibit 18: JGB issuance and BoJ purchases

Recent rise in BoJ buying as percentage of issuance

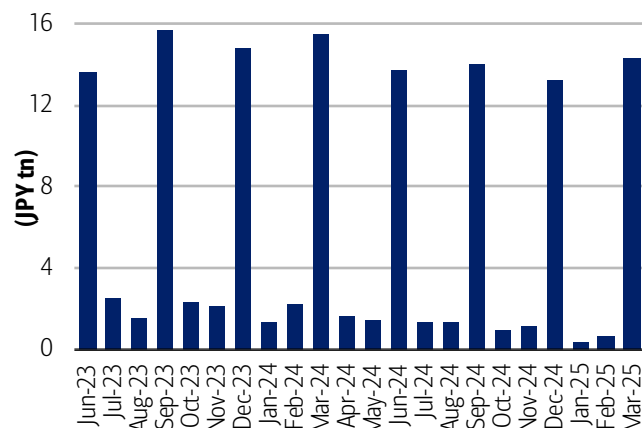


Source: Ministry of Finance, Bank of Japan, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 19: Scheduled redemptions of JGBs held by BoJ

Roughly ¥6.5tn in monthly redemptions planned for FY23



Source: Bank of Japan, Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

JGB issuance: Government to maintain loose fiscal policy

MoF's JGB issuance has trended upward since the start of the pandemic, setting new records of ¥145.7tn in 2021 and ¥147.3tn in 2022 (Exhibit 18). The government's 2021 Basic Policy targeted a primary balance surplus for both the central and local governments in FY25, although this was an unrealistic goal. The 2022 Basic Policy referred to efforts to achieve fiscal consolidation, but dropped any mention of the specific timing. We expect the Japanese government to maintain its loose fiscal policy, and think a move by the BoJ to normalize monetary policy would drive up JGB yields.

Appendix: Common acronyms

Exhibit 20: Common acronyms/abbreviations

This list is subject to change

Acronym/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

Exhibit 20: Common acronyms/abbreviations

This list is subject to change

Acronym/Abbreviation	Definition	Acronym/Abbreviation	Definition
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	Bureau of Economic Analysis	NGEU	NextGenerationEU
BLS	Bank Lending Survey	NE	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
c	circa	p	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	Germany	PT	Portugal
Dec	December	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	final print	Sun	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
GNI	Gross National Income	Tue	Tuesday
GR	Greece	UK	United Kingdom
HICP	Harmonised Index of Consumer Prices	US	United States
HMT	His Majesty's Treasury	UST	US Treasury yield
IMF	International Monetary Fund	WDA	Work-day Adjusted
INSEE	National Institute of Statistics and Economic Studies	Wed	Wednesday
IP	Industrial Production	y	year
IR	Ireland	yoy	year-on-year
PCA	Principal Component Analysis	ytd	year-to-date
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

Analyst Certification

We, Ralf Preusser, CFA and Agne Stengeryte, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal



views about the subject securities and issuers. We also certify that no part of our respective 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 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 Prudentiel 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.bofam.com/BofASEdisclaimer; 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 (HKSCF); 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 (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

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 HKSCF; 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 prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

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 or 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 Satko

Rates 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, CFA

Rates Strategist
BofAS
bruno.braizinha@bofa.com

Mark Cabana, CFA

Rates Strategist
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
cai yi.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.

