

Liquid Insight

BoJ preview: Long time coming

Key takeaways

- Mar/Apr BoJ policy shift a done deal. Strong FY24 Shunto, recent newsflow suggest BoJ may exit NIRP/YCC at the 19 Mar MPM.
- Rates: BoJ is likely to keep its excessive JGB purchases, which should contain a rise in JGB yields.
- FX: Buy USD/JPY's dip. NIRP/YCC removal not yen supportive if guidance not hawkish. We discuss various market scenarios.

By Izumi Devalier/Shusuke Yamada / Takayasu Kudo / Tomonobu Yamashita

Chart of the day: Expected market reactions (immediate - 1 week) to various scenarios at the 19 March MPM

Tone of BoJ guidance key for FX/rates reaction to a potential NIRP/YCC exit at the March MPM

	USD/JPY	10yr JGB
No change, but send strong signal for April	148-150	Fall to 0.70%
NIRP/YCC exit, with very dovish guidance	149-151 with risk of FX intervention above 152	Unchanged
NIRP/YCC exit, with moderately dovish/balanced guidance (BofA base case)	146-148	Rise to 0.80%
NIRP/YCC exit, with somewhat hawkish guidance	144-146	Rise to 0.85%

Source: BofA Global Research; Note: Relative to spot USDJPY: 147.3; 10yr JGB yield: 0.763%

BofA GLOBAL RESEARCH

We expect the BoJ to exit NIRP/YCC at the March MPM

The Bank of Japan concludes its next policy meeting, on 19 March. While a March move is not yet a done deal, we see a higher probability that the BoJ will declare its 2% price stability target "in sight" and announce an exit from NIRP/YCC next week (see BoJ watch: moving our base case for BoJ NIRP/YCC exit to the March MPM, 12 March 2024). We think the case for March is strengthened by 1) recent improvement in capex data, which paint a better picture for domestic demand; 2) aggressive union wage demands, which raise the likelihood that FY24 Shunto wage hikes will beat last year's by a significant margin (see see Shunto update: Raise base-up estimate to 3.5% on strong union demands); and 3) recent media reports suggesting discussion over the post-YCC framework are in very advanced stages (Exhibit 1).

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 8 to 10. Analyst Certification on page 7.

Timestamp: 13 March 2024 01:41AM EDT

13 March 2024

Rates and Currencies Research Global

Global Rates & Currencies Research

ИLI (UK)

Izumi Devalier

Japan and Asia Economist BofAS Japan +81 3 6225 6257 izumi.devalier@bofa.com

Shusuke Yamada, CFA FX/Rates Strategist BofAS Japan +81 3 6225 8515 shusuke.yamada@bofa.com

Takayasu Kudo Japan and Asia Economist BofAS Japan +81 3 6225 8592 takayasu.kudo@bofa.com

Tomonobu Yamashita Rates Strategist BofAS Japan +81 3 6225 7950 tomonobu.yamashita@bofa.com

Adarsh Sinha FX Strategist Merrill Lynch (Hong Kong) +852 3508 7155 adarsh.sinha@bofa.com

Janice Xue Emerging Asia FI/FX Strategist Merrill Lynch (Hong Kong) +852 3508 8587 janice.xue@bofa.com

See Team Page for List of Analysts

Liquid Insight Recent Publications

12-Mar-24	Misleading UK inflation, past and present, point to UKTi	
	<u>underperformance</u>	
11-Mar-24	Fed UST WAM shift: a slow	
	<u>aspiration</u>	
7-Mar-24	RBA preview: Tone it down	
6-Mar-24	European SSA issuance: some	
	front loading	
5-Mar-24	BoC on hold, waiting for	
	confirmation of trend in core	
4-Mar-24	ECB Preview: Not yet, but soon	
29-Feb-24	Holdovers in G10 FX	
28-Feb-24	USD - Caveat Emptor	
27-Feb-24	Connecting (to) the dots	
26-Feb-24	The difficult last inflation mile	

BofA GLOBAL RESEARCH

Exhibit 1: Recent BoJ-related reports in the media

Reporting around the upcoming 19 Mar MPM to intensify further around the blackout period, starting 14 March

Date (JST)	Outlet	Headline
6 Mar	Jiji	BoJ board member to express opinion on exiting NIRP in Marchfirst rate hike in 17 years if decided
7 Mar	Bloomberg	Some Japan Government Officials Support Near-Term BOJ Rate Hike
8 Mar	Reuters	BOJ's growing confidence in prices, wages shifts focus to March meeting
8 Mar		BoJ considering scrapping YCC, introduce new "quantitative" monetary policy framework showing outlook for JGB purchases to facilitate smooth normalization from
8 IVIdi	Jiji	easing
11 Mar	Jiji	Support for March NIRP exit spreading within BoJ as FY24 Shunto likely to exceed last year's
12 Mar	Bloomberg	BOJ Is Said to Mull March Hike With Outcome Too Close to Call
12 Mar	Reuters	BOJ to offer guidance on bond buying pace upon ending YCC - sources
13 Mar	Kyodo	BoJ to discuss raising interest rates in MPM from 18th; virtuous cycle of wages and prices

Source: BofA Global Research, various media outlets; English translation of the titles of the 6 Mar, 8 Mar and 11 Mar Jiji and 13 Mar Kyodo articles are BofA's own, since an English version of the original Japanese is not available

BofA GLOBAL RESEARCH

The strongest argument for waiting until April is that the extra month gives the BoJ access to several pieces of high-quality data, including the 1) 1Q BoJ Tankan, 2) FY24 Shunto data up to Rengo's 4th response round; 3) feedback from the quarterly BoJ branch mangers' meeting. We do not think these datapoints would affect the BoJ's decision to exit NIRP/YCC by the end of the spring per se. Rather, they are important because they can be used to bolster the central bank's case to move off emergency policy settings.

BoJ to send strong signal for April move, even if they pass on March

Despite the markets hand-wringing over March vs. April, we think the most important takeaway is that the BoJ has effectively made up its mind to move by the end of the spring.

Thus, even if the BoJ ends up holding in March, we think it is highly unlikely that it will be a "headfake," the likes of which we saw after the June, September, and December 2023 policy meetings. Instead, the BoJ is likely to send a much more explicit signal that it is thinking of moving at its next policy meeting, on 25-26 April.

We think this could take the form of Chairman's instructions to the Bank's staff to explore options for changes to the central bank's policy framework in the policy statement or further signals in Governor Ueda's post-MPM press conference.

Expected details of the BoJ's post-QQME+YCC framework

Exhibit 2 summarizes our best guess for the potential revisions to the BoJ's current framework at the time of its next move, either in March or April.

As signaled earlier in Governor Ueda's post-Jan MPM press conference and the January MPM Summary of opinions, we think policy changes will not to be limited to an exit from NIRP.

Rather, we think the BoJ's decision to declare its 2% price stability target "in sight" and exit NIRP will be accompanied by a fairly comprehensive overhaul of the BoJ's current easing framework, including:

- 1) Removal of YCC and transition back to a simple policy target focused on the uncollateralized overnight call rate (to be initially set in a range of 0-0.1%);
- 2) Formal end to risk asset purchases, particularly equities and J-REITs;
- 3) Removal of the 2% inflation overshooting commitment

If we are correct, the changes would bring the BoJ statement much closer to the way it looked before the introduction of Quantitative and Qualitative Monetary Easing (QQME), in April 2013.

As mentioned earlier, one of the lingering uncertainties related to the post-YCC framework was the way in which the BoJ would communicate its purchase pace for JGBs. But as discussed above, the aforementioned Jiji and Reuters reports strongly suggest that the BoJ would be transitioning to a "quantitative" guideline focused on monthly flow JGB purchase amounts.



The guideline is likely to be initially set at the current pace of JPY6trn/month and unlikely to be reduced for the time being. This is consistent with our long-standing base case that the BoJ would not start quantitative tightening (QT) until 2025 (for a detailed discussion of the post-YCC framework for JGB purchases, please see: YCC removal could be dovish if BoJ keeps current monthly JGB purchases, 12 March 2024).

Exhibit 2: The BoJ's current policy settings and our expectations for changes under the "new" policy framework

We expect the BoJ to overhaul its policy framework at the time of its NIRP exit

	Existing framework: QQME+YCC	New policy framework
(1) Yield Curve Control		
Guideline for market operations		
- Short-term policy interest rate	IOER on the Policy-Rate Balances: -0.1%	Uncollateralized Overnight Call Rate: 0∼0.1%
Ref: Complementary deposit facility	3 tiers of IOER at -0.1%/0.0%/+0.1%	IOER to be consolidated to single tier of +0.1%
- Long-term interest rate	10-year JGB yields: around 0%	removed
Conduct of yield curve control		
- Upper bound for 10-year JGB yields	1.0%	Removed (YCC abolished)
- Nimble responses	Increasing the amount of JGB purchases and conducting fixed-rate purchase operations and the Funds-Supplying Operations against Pooled Collateral	Increasing the amount of JGB purchases if needed (to be noted under guidelines for JGB purchases in (2) below)
(2) Guidelines for asset purchases		
- JGBs	-	Continue current pace of monthly JGB purchases of ~¥6tn for the time being
- ETF	Purchase as necessary with upper limits of about ¥12tn on annual paces of increase in the amounts outstanding	Maintain the amount outstanding of around ¥37tn
- J-REIT	Purchase as necessary with upper limits of about ¥180bn on annual paces of increase in the amounts outstanding	Maintain the amount outstanding of around ¥650bn
- CP	Maintain the amount outstanding of ¥2tn	no change
- Corporate bonds	Purchase at about the same pace as pre-COVID, so that the amount outstanding will gradually return to ¥3tn.	no change
(3) Forward guidance		
- QQME+YCC framework	The Bank will continue with QQME+YCC, as long as it is necessary for maintaining the target in a stable manner	removed
- Monetary base commitment	The Bank will continue expanding the monetary base until the YoY rate of increase in the observed CPI (ex fresh food) exceeds 2% and stays above the target in a stable manner	removed
- Additional easing if necessary	The Bank will continue to maintain the stability of financing, mainly of firms, and financial markets, and will not hesitate to take additional easing measures if necessary	no change
Other	-	Governor Ueda to emphasize, i.e. in post-MPM press conference, the gradualism of potential, future hikes, reiterating that "it is hard to imagine a path in which [the BoJ] keep raising the interest rate rapidly [following the exit from NIRP]."

Source: BofA Global Research, BoJ

BofA GLOBAL RESEARCH

What kind of forward guidance can we expect?

BoJ wary of "forward guidance trap"

Perhaps the remaining source of uncertainty is whether the BoJ will offer new rates forward guidance that pre-commits the central bank to an extremely gradual hiking pace.

We think that the BoJ would be reluctant to do so, given the high degree of uncertainty around the outlook for the Japanese economy and inflation, on both the upside and downside.

For example, speaking in a press conference following his 6 December speech in Oita, deputy governor Ryozo Himino mentioned MIT professor Athanasios Orphanides' presentation at the May 2023 BoJ IMES conference.

In the presentation, Professor Orphanides discussed how the DM central banks, including the Fed and ECB, fell into a "forward guidance trap" as adherence to strict forward guidance on policy rates delayed lift-off, fueling high inflation.



Deputy governor Himino agreed with the argument that, while it's important for central banks to explain the rationale behind their policy decisions, it's problematic to precommit to a specific sequence of actions.

Gov Ueda likely to stress gradualism in his press conference remarks

Having said this, the BoJ is likely wary of being perceived as hawkish and stoking unwanted speculation over an early and aggressive path for additional hikes. As such, we expect Governor Ueda use his post-MPM press conference to re-iterate recent comments hinting at gradualism¹, and the expectation that monetary conditions will remain easy, even after the exit from NIRP.

We continue to see cautious hikes, to 0.25% in October, and 0.5% in April 2025 As for our outlook for the BoJ's rate hike path: for now, we keep unchanged our call that the BoJ's exit from NIRP will be followed by additional hikes, to 0.25% in 4Q CY24 (October) and 0.5% in 2Q CY25 (April).

In our view, further hawkish repricing of the BoJ hiking path would require evidence of a robust recovery in sentiment and consumer spending following spring wage hikes, which we will not be able to assess for at least a few more months.

What to watch in the days ahead

Ahead of the BoJ's 19 March policy decision, markets will likely remain sensitive to BoJ-related headlines.

On the data front, the last big piece before next Tuesday's MPM is Rengo's announcement of initial estimates of FY24 average base pay hikes, which will be published after the close on Friday, 15 March.

Markets will also be on guard for further BoJ "leaks" by the media outlets. In particular, the Nikkei Shimbun's prognosis for the March MPM will be closely watched, given the paper's track record of flagging policy changes in the past.

- Izumi Devalier & Takayasu Kudo, Economists

Market implications

As we head into the BoJ MPM next week, we summarize key points of our view on the yen markets. We see four potential scenarios depending on the decision on NIRP/YCC and tone of accompanying BoJ guidance (for our view on each market, see below):

- On hold, but with strong signal for NIRP/YCC exit at the 26 April MPM: The
 yen markets have priced in a removal of NIRP and YCC as the possibility has been
 telegraphed by media. 2yr JGB yield is traded around 0.2%, which suggests the
 market penciled in the NIRP end and shift to a single-tier IOER structure. The BoJ
 not moving next week would lead to positional unwinding, leading to higher
 USD/JPY (148-150) and lower JGB yields (0.7% for 10yr JGBs) but expectations for
 April could limit the move.
- NIRP/YCC exit, with very dovish guidance: This would see the BoJ exit
 NIRP/YCC and commit to strong forward guidance (i.e. in the policy statement) that
 front-end rates would stay on hold for the foreseeable future. On JGB purchases, the
 governor may stress that he did not expect purchase amounts to be cut (from the
 reported, JPY6trn/month pace) for the foreseeable future (i.e. a year). In this case,
 USD/JPY could rise to 150 and test the cyclical high of 152 in coming weeks, raising
 the FX intervention risk.

1

¹ For example, Governor Ueda may repeat the comments made by himself and other BoJ officials such as deputy Governor Uchida and board member Takata that, given the central bank's current outlook for the economy and prices, "it is hard to imagine a path in which it would then keep raising the interest rate rapidly."

- NIRP/YCC exit, with moderately dovish/balanced guidance (BofA base case): In this scenario, Governor Ueda may use his post-MPM press conference to reiterate recent remarks that, under the BoJ's current baseline view, he did not expect the BoJ to hike rates rapidly. However, the governor would also stress that the outlook for policy will be data dependent, retaining flexibility for future policy actions. On JGB purchases, the governor may stress that the Bank did not expect buying amounts to be cut in the near-term, but that the decision would be reviewed at every policy meeting.
- NIRP/YCC exit, with somewhat hawkish guidance: This scenario would see the BoJ acknowledging that recent upside surprises in the data (i.e. FY24 Shunto wage hikes) meant that the upside risk to underlying inflation was slightly higher than the central bank thought previously. On JGB purchases, the governor might hint at the possibility that purchases could be cut, or that the reported JPY6tn/month initial guideline for flow JGB purchases would be revised flexibly based on market conditions. In this case, USD/JPY could fall to 144-146 range and the 10yr JGB yield could rise to 0.85%.

Rates: Excessive JGB purchases likely to continue

Since the publication of the Jiji article, the market sees enhanced risk for the BoJ's NIRP and YCC removal at the March MPM. On the other hand, the BoJ's policy revisions are expected to be gradual, so that they do not lead to a sharp rise in JGB yields. According to the Jiji article, the BoJ is likely to buy around ¥6tn in JGBs per month, while the BoJ has already reduced its outright purchases of JGBs to ¥5.9tn, bringing its monthly purchase amount generally in line with future scheduled redemptions². In other words, the BoJ may not start a de facto QT in the near term.

Hence, in our view, room for a rise in the 10yr JGB yield will be limited even if the BoJ retreats from its inflation-overshooting commitment when exiting YCC. On the other hand, there is a risk that the BoJ reduces purchases of 5-10yr JGBs and increases purchases of 1-3yr and/or 3-5yr JGBs, which would enable the BoJ to keep the total size in JGB purchases unchanged. However, BoJ would buy about 58% of 1-3yr JGBs and about 74% of 3-5yr JGBs of new issuance from April if the BoJ keeps the current size of bond-buying operations³. Thus, supply/demand over medium term is expected to be tight, and the reduction in JGB purchases of 5-10yr and increase in JGB purchases of medium-terms would likely be limited⁴. We expect the 10yr JGB yield to be traded between 0.75%-0.80% if the BoJ delivers policy revisions as *Jiji* reported (spot: 0.763%).

We think the risk to our views on yen rates is skewed to the upside. What *Jiji* reported on bond-buying operations seems very dovish even though the BoJ is expected to overhaul its asset-purchase program at the March MPM. BoJ governor Ueda may comment about likely QT at the press conference, and the market could price in a de facto start in QT.

- Tomonobu Yamashita, Rates Strategist

USD/JPY: buy the dip

We advise investors to look at the detail of potential policy changes. The market's reaction to a potential removal of YCC, NIRP, and overshooting commitment may be initially hawkish. However, if the BoJ communicates to the market that it would maintain the pace of bond buying in case of flow target policy, the JGB market would likely stabilize as it expects stable bond buying by the BoJ in the near term (see: Japan

⁴ One of the opinions expressed at the December 2023 BoJ workshop conducting a "Broad-Perspective Review Of Monetary Policy" was that BoJ JGB holdings in excess of 70% of outstanding issuance reduces market trading volume.



 $^{^{2}}$ Scheduled monthly redemptions of the BoJ's current holdings of JGBs will average about ¥5.9tn in 2024.

 $^{^{3}}$ 73% for 5-10yr JGBs

<u>Viewpoint: YCC removal not hawkish if BoJ keeps current monthly JGB purchases 13 March 2024</u>).

If it scraps YCC and establishes a new guideline for flow JGB purchases at JPY6tn/month, as the Jiji report implies, USD/JPY's decline from here would likely be limited. If Ueda sounds constructive on additional hikes and balance sheet reduction in the near future in his press conference, USD/JPY correction could extend through 145. If the BoJ unexpectedly stays on hold next week or strikes dovish guidance on future hikes and QT, USD/JPY could resume its uptrend, which increases the risk of FX intervention if it approaches 152.

- Shusuke Yamada, FX/Rates Strategist



Notable Rates and FX Research

- Global Macro Year Ahead 2024 Hope for the best, prepare for the worst, 19 Nov 2023
- Global Rates Year Ahead 2024 Cloudy with a chance of landing, 19 Nov 2023
- **G10 FX Year Ahead** The year of the landing, 20 Nov 2023
- Ahead of a busy week, Liquid Cross Border Flows, 4 Mar 2024

Rates, FX & EM trades for 2024

For a complete list of our open trade recommendations, as well as our trade recommendations closed over the past 12 months, see the reports below:

Global FX Weekly: The June target 08 March 2024

Global Rates Weekly: Double WAMmy 08 March 2024

Analyst Certification

I, Tomonobu Yamashita, 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 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.bofaml.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 (Australia): Merrill Lynch (Hong Kong): Merr (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): Merrill Lynch (Canada): Merrill Lynch (Mexico): Merrill Ly 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 (I Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch (Brazil): 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 HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in 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 Securities entities, i

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.

Futures and options are not appropriate for all investors. Such financial instruments may expire worthless. Before investing in futures or options, clients must receive the appropriate risk disclosure documents. Investment strategies explained in this report may not be appropriate at all times. Costs of such strategies do not include commission or margin expenses. 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 2024 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 inform

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

Ralph Axel

Rates Strategist BofAS +1 646 855 6226

ralph.axel@bofa.com Paul Ciana, CMT

Technical Strategist +1 646 855 6007 paul.ciana@bofa.com

John Shin

FX Strategist **BofAS** +1 646 855 9342 joong.s.shin@bofa.com

Vadim Iaralov

FX Strategist **BofAS** +1 646 855 8732 vadim.iaralov@bofa.com

Mark Cabana, CFA

Rates Strategist +1 646 855 9591 mark.cabana@bofa.com

Bruno Braizinha, CFA

Rates Strategist +1 646 855 8949 bruno.braizinha@bofa.com

Meghan Swiber, CFA

Rates Strategist **BofAS** +1 646 855 9877 meghan.swiber@bofa.com

Europe

Ralf Preusser, CFA Rates Strategist MLI (UK) +44 20 7995 7331 ralf.preusser@bofa.com

Ruben Segura-Cayuela

Europe Economist BofA Europe (Madrid) +34 91 514 3053 ruben.segura-cayuela@bofa.com

Mark Capleton

Rates Strategist MLI (UK) +44 20 7995 6118 mark.capleton@bofa.com

Athanasios Vamvakidis

FX Strategist +44 020 7995 0279 athanasios.vamvakidis@bofa.com

Sphia Salim

Rates Strategist MLI (UK) +44 20 7996 2227 sphia.salim@bofa.com

Kamal Sharma

FX Strategist MLI (UK) +44 20 7996 4855 ksharma32@bofa.com

Ronald Man

Rates Strategist MLI (UK) +44 20 7995 1143 ronald.man@bofa.com

Michalis Rousakis

FX Strategist +44 20 7995 0336 michalis.rousakis@bofa.com

Pac Rim

Adarsh Sinha

FX Strategist Merrill Lynch (Hong Kong) +852 3508 7155 adarsh.sinha@bofa.com

Janice Xue

Rates Strategist Merrill Lynch (Hong Kong) +852 3508 8587 janice.xue@bofa.com

Shusuke Yamada, CFA

FX/Rates Strategist BofAS Japan +81 3 6225 8515 shusuke.yamada@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.

