Liquid Insight

RBA preview: an uncomfortable pause

29 June 2023

Rates and Currencies Research
Global

Global Rates & Currencies Research
MLI (UK)

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

Devika Shivadekar
Economist
Merrill Lynch (Australia)
+61 2 9226 5156
devika.shivadekar@bofa.com

Oliver Levingston
Rates Strategist
Merrill Lynch (Australia)
+61 2 9226 5173
oliver.levingston@bofa.com

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

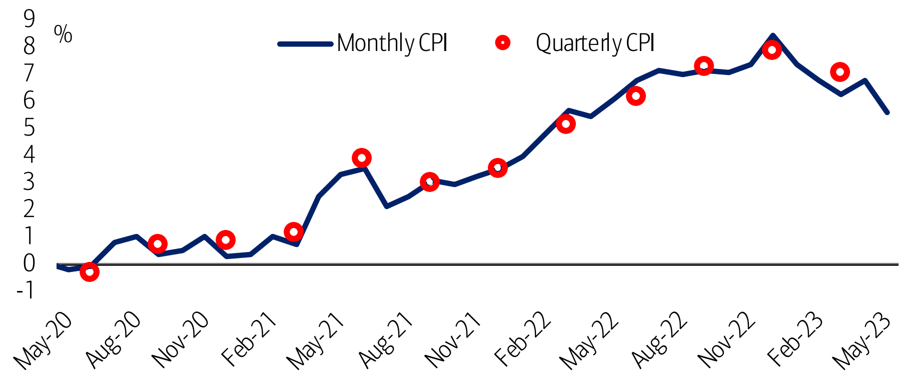
See Team Page for List of Analysts

Key takeaways

- The RBA meets Tuesday, 4 July. We now expect a pause, based on dovish tone of Jun RBA minutes & softer-than-expected May CPI.
- However we still expect 1 more 25bp hike In August: activity is slowing, but underlying inflation remains uncomfortably high.
- AU rates tactical view: steepeners should outperform but we prefer to express this view further out the curve (5s30s/10s30s).

By Izumi Devalier/Devika Shivadekar/Oliver Levingston/Adarsh Sinha

Chart of the day: Monthly inflation softens in May
Driven by tradables while non-tradables continue to rise



Source: ABS

BofA GLOBAL RESEARCH

RBA on hold in July, but we see a hike in August

The Reserve Bank of Australia meets on July 4th and we expect rates to remain unchanged at 4.1%. However, we see scope for another 25bps hike in August to take the cash rate to 4.35%. We had previously pencilled in a hike in July, but softer than expectd monthly inflation (driven by a sharp 8% fall in petrol prices) along with weaker consumer spending and confidence gives the Bank the opportunity to wait for 2Q CPI data due on July 28th and another labour force release on July 20th.

The case for another hike remains strong, in our view, given domestic inflation pressure remains significant into 3Q and the labour market is very tight. Additionally, the 1Q national accounts showed the sharp rise in cost of living is hurting consumers, with GDP rising a modest 0.2%qoq (2.3%yoy) and consumer spending posting the softest print since the 2021 lockdowns. The Bank remains focused on striking the right balance between addressing price pressures and supporting full employment/ economic growth.

Liquid Insight Recent Publications

BofA GLOBAL RESEARCH

Timestamp: 29 June 2023 12:30AM EDT

RBA communication is mixed

The minutes from the June meeting where the Bank delivered a hike (see: Australia Watch: RBA review: Not done yet 06 June 2023) reflected a more cautious tone than the hawkish guidance the RBA adopted in May and June. Indeed, the deputy Governor Bullock confirmed the RBA remains willing to preserve the progress towards full employment. The slight shift in tone was reflected in our note (see Australia Rates Alpha 21 June 2023).

Activity softens, inflation remains elevated

While spare capacity in the economy is very limited, survey-based measures of inflation are starting to turn. In our view, this should give the RBA some confidence that rate hikes are gaining traction but also suggests activity is set to soften further.

Encouragingly for the RBA, consumers' and businesses' perceptions of inflation seem to be slowing, easing concerns that inflation expectations could re-anchor at a higher level (Exhibit 1).

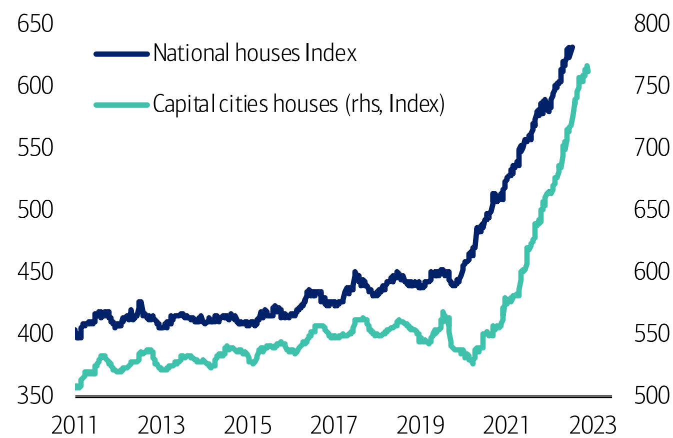
Conversely, domestic price pressures remain sticky. Rent prices continue to rise (Exhibit 2) and demand for housing is rising as population growth strengthens. The latter could be a positive for the consumer as the housing sector plays an important role in consumer confidence and wealth effects could support further spending.

Exhibit 1: Consumers see softer growth and inflation next year
This reflects some traction from higher rates

Source: Macrobond, ANZ Roy Morgan

BofA GLOBAL RESEARCH

Exhibit 2: Weekly rent prices index continues to rise
Placing further pressure on CPI and consumers



Source: SQM Research, Macrobond

BofA GLOBAL RESEARCH

The consumer remains a key focus for the outlook for rates as is the labour market. GDP data for 1Q reflected the weakest quarterly increase in household spending (+0.2%qoq) since the fall recorded during the lockdowns in September 2021.

Meanwhile, recent data on the labour market reflected larger than expected job gains and a 0.1pt fall in unemployment to 3.6% despite an increase in participation. Leading indicators continue to point to softer labour market conditions ahead and broader measures of unemployment have edged higher.

Timely indicators point to a gradual easing in inflation in the June quarter: the ABS' monthly CPI indicator came in much softer-than expected in May, with headline inflation slowing to 5.6%YoY, down from 6.8% in YoY in April (-0.4% MoM SA) (Chart of the day: Monthly inflation softens in May

Driven by tradables while non-tradables continue to rise). The slowdown was driven by a sharp, 8% fall in petrol prices as well as a large drop in holiday travel & accommodation prices.

Though noisy, we think the May monthly CPI data likely increases the RBA's incentive to wait for a fuller picture of 2Q inflation (due 28 July) before assessing its next policy move. The shift to a more cautious tone in the June RBA meeting minutes also points to a higher likelihood of a pause next week.

That said, underlying inflation, though also slowing from the peak in December, remains elevated (the ABS' annual trimmed mean measure was running at 6.1%YoY in May, vs. 6.7% April). Moreover, 3Q data is seasonally strong and will reflect higher electricity prices, tobacco excise, and rent inflation edging higher.

Thus, while we think the Bank is set to pause in July, this would be an uncomfortable pause considering the ongoing rise in cost of living, tightness in the labour market and the persistence of inflation. Given the policy lags, the Bank could choose to hike ahead of upside risks to prices in the near-term, resulting in a non-zero chance of another 25bp rates increase next week. And even if the Bank pauses, in line with our base case, we think a hike is likely in August, when the RBA updates its economic forecasts.

Exhibit 3: Australia: Upcoming key releases

The 2Q CPI, Aug RBA SMP and employment releases will be closely watched

29-Jun	**Retail Sales (May)**	**5-Sep**	**RBA Cash Rate decision (Sep)**
4-Jul	**RBA Cash Rate decision (Jul)**	**6-Sep**	**GDP (2Q)**
18-Jul	RBA Minutes (Jul)	19-Sep	RBA Minutes (Sep)
20-Jul	**Employment (Jun)**	27-Sep	Monthly CPI (Aug)
26-Jul	**Quarterly CPI (2Q)**	28-Sep	Retail Sales (Aug)
28-Jul	Retail Sales (Jun)	**3-Oct**	**RBA Cash Rate decision (Oct)**
1-Aug	**RBA Cash Rate decision (Aug)**	17-Oct	RBA Minutes (Oct)
4-Aug	RBA Statement on Monetary Policy (Aug)	**19-Oct**	**Employment (Sep)**
15-Aug	RBA Minutes (Aug)	**25-Oct**	**Quarterly CPI (3Q)**
15-Aug	**Wages (2Q)**	25-Oct	Monthly CPI (Aug)
17-Aug	**Employment (Jul)**	30-Oct	Retail Sales (Sep)
28-Aug	Retail Sales (Jul)		
30-Aug	Monthly CPI (Jul)		

Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Rates: Rally fades as market remains cautiously optimistic

An outsized rally in 3y bond futures (YM contracts) in the immediate aftermath of the CPI print faded as markets digested contrasting messages from core and headline CPI (Exhibit 4). The muted response to CPI in XM contracts/ 10y bonds suggests markets were already long or remain unconvinced that falling headline monthly CPI changes the outlook for duration. Unsurprisingly, breakevens led the rally but real rates also richened, reversing recent trends (Exhibit 7). The market response is largely consistent with the feedback we are getting from onshore clients who continue to see downside economic risks from a rate-sensitive household sector.

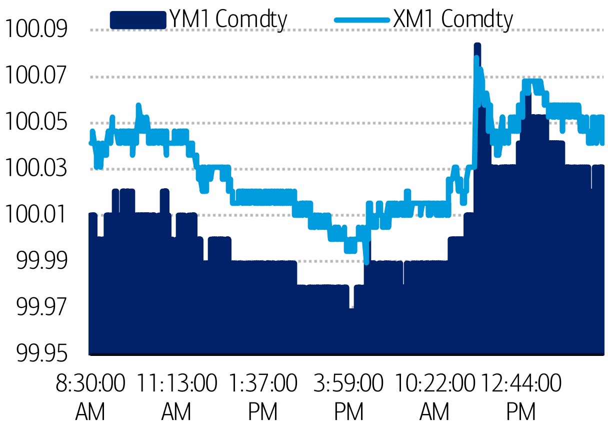
Another likely explanation for the muted response from 10y bonds is the positive spread between 10y ACGBs and 10y USTs (~14bps), which has prompted interest in cross-market compression trades (i.e., long 10y ACGB, short 10y UST). The cross-market compression trade currently has 6.5bps of carry and roll and has likely been supporting 10y ACGBs, which have outperformed on a cross-market basis over the last week.

Open interest in 10y futures contracts has also held up better than 3y bond futures throughout the hiking cycle, suggesting some investors have exited the YM futures market while uncertainty over the pace and duration of the rate hike prevails (Exhibit 6).

Tactically, steepeners should outperform in the near term given our economists' outlook for a pause in July and softness in inflation data but we prefer to express this view further out the curve (e.g., 5s30s/ 10s30s steepeners) given uncertainty over the RBA's reaction function and the high beta of 2y-5y ACGBs to RBA pricing.

Exhibit 4: Outsized rally in YM signals market short 3y into CPI (indexed to 8:30am prices)

Curve flatteners looking stretched

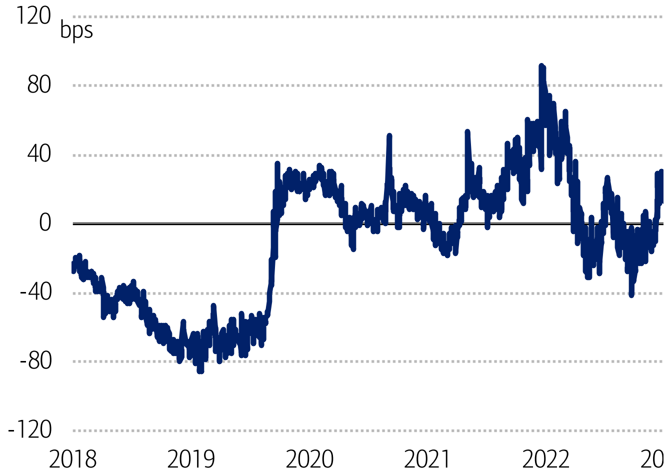


Source: BofA Global Research , Bloomberg

BofA GLOBAL RESEARCH

Exhibit 5: Positive UST/ACGB spread adding receiving pressure

Receive 10y ACGB, pay 10y UST has attractive carry and spread

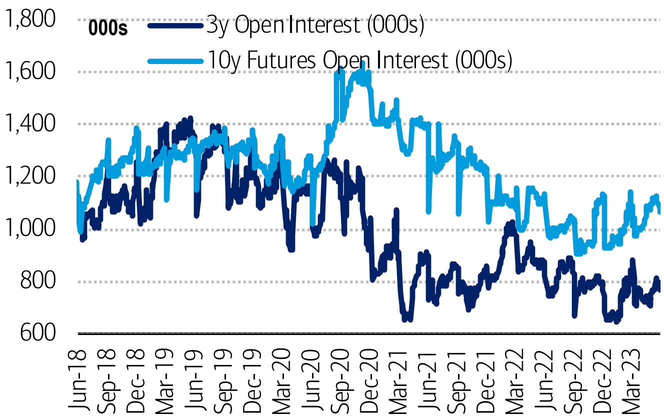


Source: BofA Global Research , Bloomberg

BofA GLOBAL RESEARCH

Exhibit 6: Open interest has waned since 2020

10y open interest may be starting to rise again though

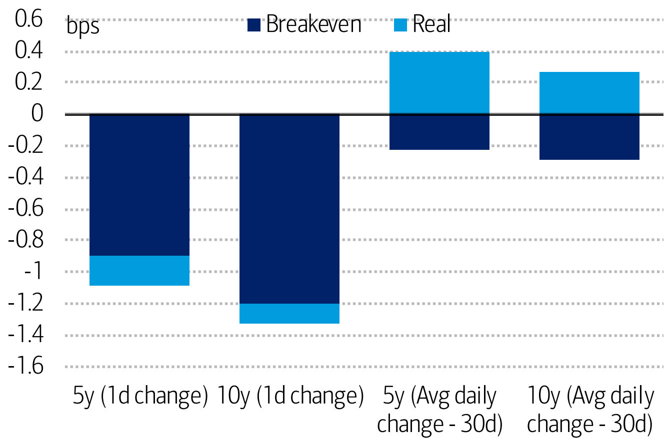


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 7: Real rates rallied after CPI, reversing recent trends

Breakevens unsurprisingly led rally, but growth expectations are moderating



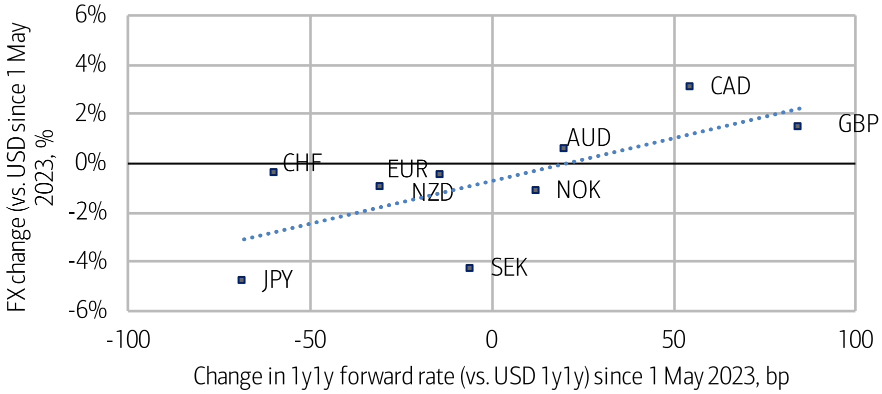
Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

FX: RBA surprises still matter

At the surface, FX markets struggling to disentangle the short-term risk of higher terminal rates vs. medium term recession risk. This is partly evident in recent muted FX reactions for central bank surprises (Bank of England and Norges Bank). However, Exhibit 8 shows cross-sectional FX performance has been largely consistent with shifts in front end differentials. And despite recent swings in AUD FX, its overall move is precisely in line with what its historical beta to 1y1y forward differentials would imply (see note: Do rates still matter for FX? 26 June 2023). In this context, a pause by RBA would weigh on AUD near-term but much would depend upon whether the guidance is hawkish or aligns closer to the softer language in the minutes. If the RBA signals further tightening is likely (pause ≠ terminal), AUD downside should be limited. We maintain a forecast of 0.67 for 3Q (close to current levels) – a meaningful recovery is unlikely before 4Q and will depend upon the magnitude and effectiveness of China policy easing in coming months.

Exhibit 8: G10 FX vs. 1y1y changes (relative to USD) since 1 May 2023
G10 FX changes largely consistent with shifts in front end rate differentials



Source: Bloomberg

BofA GLOBAL RESEARCH

Notable Rates and FX Research

- **Global Rates, FX & EM Year Ahead 2023 –** Year Ahead 2023: Pivot ≠ Peak, 20 Nov 2022
- The curious case of r** **Global FX Weekly**, 23 June 2023
- High hurdles **Global Rates Weekly**, 23 June 2023
- USD under pressure again, **Liquid Cross Border Flows**, 19 June 2023

Rates, FX & EM trades for 2023

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 curious case of r** 23 June 2023

Global Rates Weekly: High hurdles 23 June 2023

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 Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSFC); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Investment Industry Regulatory Organization of Canada; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (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 HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information 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.

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:

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

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

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

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

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

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

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

Research Analysts

US

Ralph Axel
Rates Strategist
BofAS
+1 646 855 6226
ralph.axel@bofa.com

Paul Ciana, CMT
Technical Strategist
BofAS
+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
BofAS
+1 646 855 9591
mark.cabana@bofa.com

Bruno Braizinha, CFA
Rates Strategist
BofAS
+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
MLI (UK)
+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
MLI (UK)
+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