BofA SECURITIES

Emerging Insight

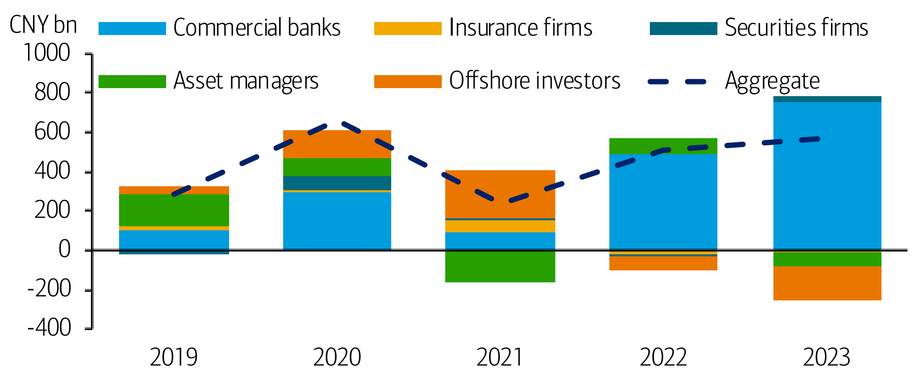
China govt bonds' committed buyer

Key takeaways

- If policy makers decide to issue another CNY1tn govt bonds, back-end bonds will likely face some immediate sell-off pressure.
- That said, we remain constructive on China rates over the medium-term, expecting 10y CGB to test 2.5% in 2H.
- Commercial banks have stepped up CGB buying since 2022. We think their demand will remain robust in the coming months.

By Janice Xue

Exhibit 1: Changes in CGB holdings by investor types during the first five months
Commercial banks absorbed a much larger proportion of CGB net supply in 2022 and ytd



Source: CEIC, China Central Depository & Clearing, BofA Global Research

BofA GLOBAL RESEARCH

China in Focus

Commercial banks absorbed a much larger proportion of CGB net supply in 2022, and the trend has continued so far this year. We think the stepping-up of their bond demand can be attributed to: 1) relative valuation between loans and bonds, and 2) faster expansion of new deposits versus new loans that leaves banks in search of other assets. Those two factors will likely continue to play out. Our economists expect another 15bp cut in the LPR, which will likely guide lending rates lower. Also, weak consumer sentiment and home-buyer confidence probably mean that the large gap between new household deposits and loans will remain. If policymakers decide to issue CNY1tn special treasury bonds, the knee-jerk reaction would be back-end bonds selling off, but the magnitude should be moderate. We remain constructive on China rates over the medium-term.

26 June 2023

GEM Fixed Income Strategy & Economics
Global

Janice Xue
Rates Strategist
Merrill Lynch (Hong Kong)
janice.xue@bofa.com

David Hauner, CFA >>
Global EM FI/FX Strategist
MLI (UK)
david.hauner@bofa.com

Claudio Irigoyen
LatAm FI/FX Strategy/Economist
BofAS
claudio.irigoyen@bofa.com

See Team Page for List of Analysts

CGB - China government bond

LPR - Loan prime rate

MLF - Medium-term lending facility

OMO - Open market operation

PFB - Policy financial bond

WMP - Wealth management product

Commercial banks' have stepped up demand for CGBs

Total net supply of CGBs has reached about CNY900bn as of 23 Jun, which is 29% of the 2023 budgeted deficit allocated to the central government. The issuance pace may seem slow, but it is actually in line with the historical issuance pattern – very limited net supply in 1Q followed by a gradual pickup from 2Q onwards (Exhibit 2). As for the local government special bonds, around CNY2tn out of the CNY3.8tn issuance quota has been used. With weakening growth momentum, we expect an acceleration in issuance in the coming months, as it's likely that policy makers will ask local governments to use up all quota by September-end (Exhibit 3).

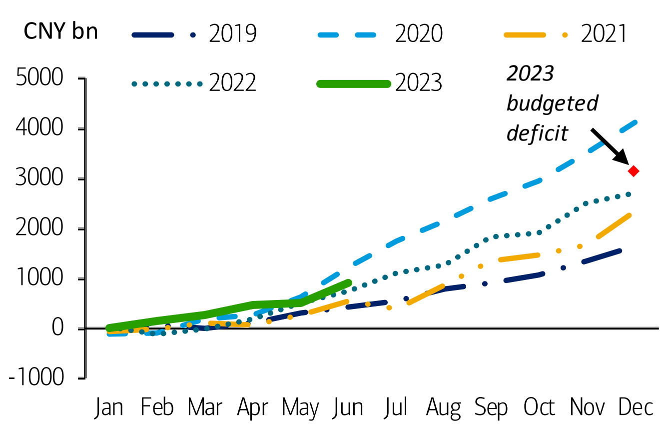
Turning to the demand side, commercial banks expanded their CGB holdings by CNY752bn from January to May, while the aggregate interbank CGB holdings only increased by CNY572bn. In other words, commercial banks not only absorbed all net issuances, but also bought more CGBs in the secondary market from other players like asset managers (including WMPs) and offshore investors. To be fair, the incremental increase in commercial banks' demand for bonds, or CGBs in particular, isn't entirely new. In 2022, commercial banks' CGB holdings expanded by CNY2.4tn, which is equivalent to 90% of annual net supply. In contrast, from 2019 to 2021, commercial banks absorbed about 60% of net supply on average (Exhibit 8). Similar trend was observed in commercial banks' participation in the PFB space as well (Exhibit 9).

We think the change in commercial bank's bond investments allocation can be attributed to two main factors: 1) relative valuation between loans and bonds (price factor), and 2) faster expansion of new deposits versus new loans that leaves banks in search of other assets (quantity factor).

Bank lending rates dropped more rapidly than bond yields

During the economic downturn in 2022, PBoC made strong efforts in reducing financing costs for corporates and households through policy rate cuts, re-lending programs, etc. The weighted average rates for new loans declined by more than 60bp during 2022, while the quarterly average 10y CGB yield only dropped by 10bp. The spread between lending rates and CGB yields had declined to 135bp as of 2022-end, the lowest level since data became available. Taking into consideration that CGBs have 0% risk weight in calculating capital requirement and the interest incomes are tax-exempt, current bond yield levels probably remain appealing for commercial banks.

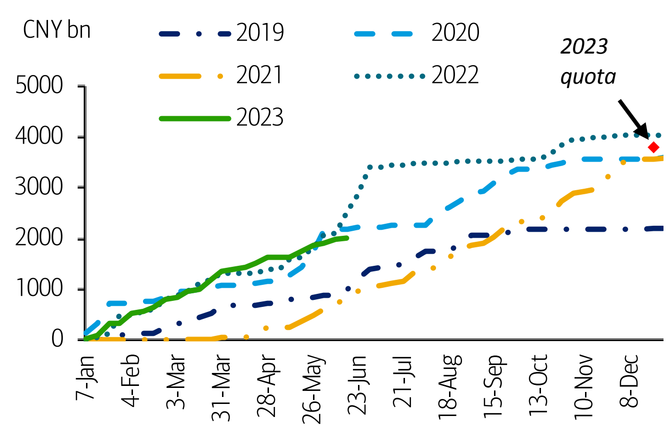
Exhibit 2: Cumulative China central govt bonds issuance
29% of annual net supply has been made as of June 2023



Source: Wind, BofA Global Research

BofA GLOBAL RESEARCH

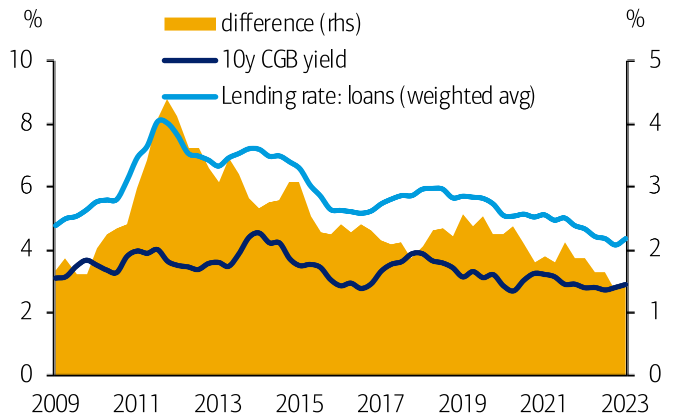
Exhibit 3: Cumulative local govt special bonds issuance
Around CNY2tn out of the CNY3.8tn quota has been used as of Jun23



Source: Wind, BofA Global Research

BofA GLOBAL RESEARCH

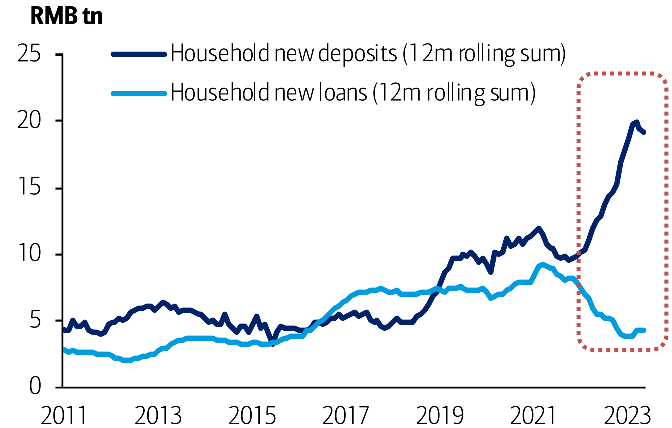
Exhibit 4: Bond yield vs. lending rates
Bank lending rates dropped more rapidly than bond yields



Source: BofA Global Research, CEIC

BofA GLOBAL RESEARCH

Exhibit 5: New household deposits vs. new loans
New deposits significantly outpaced new loans since 2022



Source: BofA Global Research, Wind

BofA GLOBAL RESEARCH

More allocation to bonds as new deposits outpacing new loans

China's household sector has built up significant amount of excess savings since 2022 amid the backdrop of a weak property market and high uncertainties. The gap between household new deposits and new loans was CNY14tn in 2022, and CNY7.4tn from Jan to May 2023 (Exhibit 5). To match deposit inflows on the liabilities side, banks can either grant loans or expand their securities portfolio. Looking at banks' allocation of funds (Exhibit 6), it seems that national commercial banks were able to grow their loan books at a faster pace than their small and medium-sized counterpart since early 2022, potentially because they are better positioned to fund infrastructure projects. In terms of bond investments, yoy growth rate has been rising for both types of banks, but small and medium-sized commercial banks continued to expand their bond portfolios more rapidly (Exhibit 7).

Market awaits more support measures

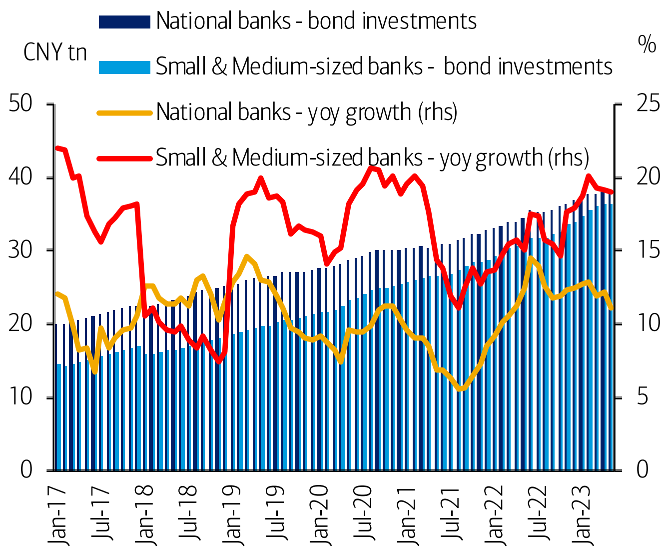
Recently, policy makers indicated that they are considering rolling out more measures to stimulate demand, and there has been some market expectation on the potential issuance of CNY1tn special treasury bonds. If that materializes and assuming those bonds are publicly issued, it means that 2H net supply of government bonds (central and local) will go up by about 25% to CNY5tn. Our economists highlighted that the actual growth impact would depend on how the funds are used, and they see a higher fiscal multiplier if those are allocated to infrastructure investment or consumption (China Watch - More coordinated easing measures are on the way).

As far as the bond market is concerned, the knee-jerk reaction would be back-end bonds selling off, but the magnitude should be moderate as the market seems to have already priced in some upcoming property and fiscal easing measures. Also, we believe that the market should be able to absorb CNY1tn additional issuance relatively well.

The price and quantity factors that underpinned commercial banks' steady demand for bonds should continue to play out in the coming months. On the price side, we expect another 15bp reduction in the LPR rate (likely accompanied by MLF/OMO rate cuts) by year-end, which will likely guide bank lending rates lower. From the quantity perspective, weak consumer sentiment and home-buyer confidence (as illustrated in China Watch – June Consumer Survey) probably mean that there will continue to be a large gap between new household deposits and loans, upholding banks' bond investment capacity. Over the medium-term, we remain constructive on China rates, expecting 10y CGB to test 2.5% in the 2H.

Exhibit 6: Commercial banks' allocation to bond investments

Small and medium-sized commercial banks continued to rapidly expand their bond portfolios

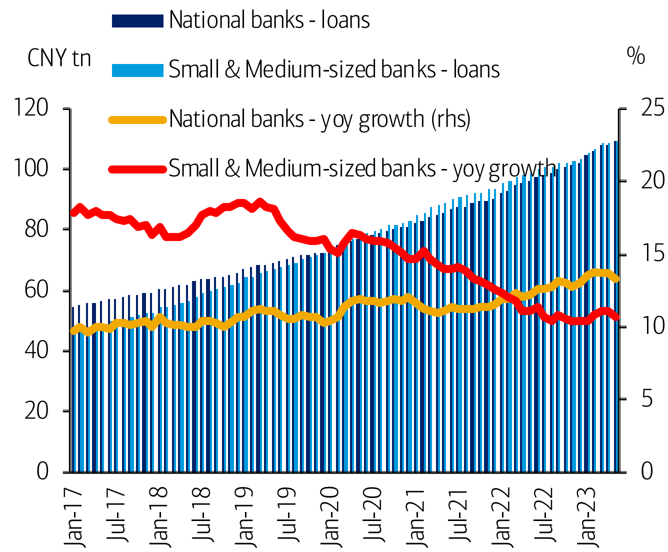


Source: BofA Global Research, Wind

BofA GLOBAL RESEARCH

Exhibit 7: Commercial banks' allocation to bond investments

National commercial banks were able to grow their loan books at a faster pace than small and medium-sized banks

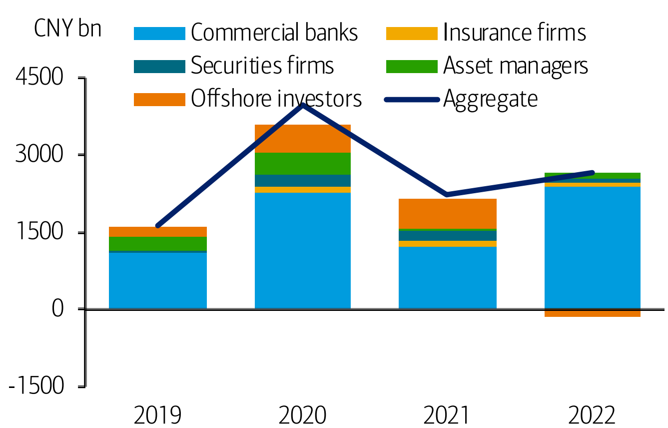


Source: BofA Global Research, Wind

BofA GLOBAL RESEARCH

Exhibit 8: Changes in CGB holdings by investor types

Commercial banks absorbed a larger proportion of CGB supply in 2022 vs. previous years

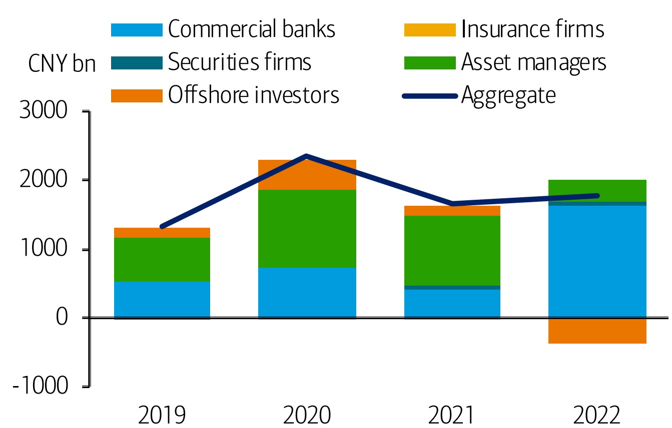


Source: CEIC, China Central Depository & Clearing, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 9: Changes in PFB holdings by investor types

Commercial banks absorbed a larger proportion of PFB supply in 2022 vs. previous years



Source: CEIC, China Central Depository & Clearing, BofA Global Research

BofA GLOBAL RESEARCH

News and Views

Brazil: Total Tax Collections increased 2.6% yoy in May, in real terms

David Beker
+55 11 2188 4371

Natacha Perez
+55 11 96057 1866

Total Tax Collections reached R$176.8bn in May (down from R$203.8bn in April), according to the Brazilian Internal Revenue Service (IRS), in line market expectations of R$176.5bn. Year-over-year, total tax revenues increased 6.9% in nominal terms (vs +4.5% in Apr) and increased 2.9% in real terms (vs +0.3%). The Income tax was 33.1% of total collections, contributions (which include COFINS, PIS/PASEP and CSLL) were 26.4%, social security revenues were 27.4%, IPI (tax on industrial products) was 2.8%, import tariffs were 2.6%, IOF (tax on financial operations) was 2.6% and other taxes corresponded to 5.1%.

- **To follow:** In May, tax collections registered an increase of 1.0% yoy in real terms. After seasonal adjustment, the result was a marginal increase of 0.8% mom sa. We expect a larger marginal increase next month, due to the return of federal taxation on fuels. The deceleration in outstanding credit in May lead to a -10.1% YoY (real) recoil in IOF. On the other hand, the increase of social security contribution +7% YoY (real), motivated by larger wage bill, stood out on the positive side.

Mexico: Core inflation fell to 6.91%, the lowest increase since 2H March 2022

Carlos Capistran
+1 646 743-2921

Biweekly headline inflation in 1H June lower than expected at 0.02% (E. 0.13%, BofA 0.06%). Core inflation was also lower than expected at 0.11% (E. 0.22%, BofA 0.16%). The surprise in non-core inflation is mostly explained by a lower-than-expected livestock inflation at -1.34% (eggs, fish) and energy inflation at -0.45% (LP gas). The surprise in core inflation is mostly explained by a lower-than-expected non-food merchandise inflation at -0.05% (autos, tennis shoes). In annual terms, headline inflation is now at 5.18% from 5.67% yoy while core inflation is now at 6.91% from 7.32% yoy a fortnight ago.

- **To follow:** Headline and core falling and core already below 7.00% yoy bode well for Banxico to remain on hold even if the Fed hikes more, which is our baseline for the rest of the year. For Banxico to cut, however, we believe it needs to see core at or below 5.00%, which will still take some months to happen given the very tight labor market, in our view.
-

Mexico: Private consumption and investment boosted aggregate demand

Carlos Capistran
+1 646 743-2921

Aggregate demand in 1Q better than expected at 5.4% yoy nsa (E. 4.2%). At the margin, aggregate demand increased 7.4% qoq saar (vs 0.1% in 4Q). By components, private consumption was the main driver to the upside at 9.1% qoq saar (vs 2.9% in 4Q) followed by investment at 12.5% qoq saar (vs 13.6% in 4Q), largely private investment at 14.1% qoq saar (vs 10.6% in 4Q). Exports increased 2.3% qoq saar (vs -17.5% in 4Q) while government consumption fell 1.4% qoq saar (vs -2.1% in 4Q). On the supply side, GDP increased 4.1% qoq saar (vs 2.3% in 4Q) while imports increased 19.4% qoq saar (vs -8.8% in 4Q).

- **To follow**: The main drivers of the economy this year so far are private consumption and investment, driven in part by remittances and nearshoring, respectively. The GDP print was large, and we believe the Mexican economy is overheated, which in turns makes it difficult for Banxico to cut anytime soon

Special Disclosures

Some of the securities discussed herein should only be considered for inclusion in accounts qualified for high risk investment.

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.
Individuals identified as economists do not function as research analysts under U.S. law and reports prepared by them are not research reports under applicable U.S. rules and regulations. Macroeconomic analysis is considered investment research for purposes of distribution in the U.K. under the rules of the Financial Conduct Authority.
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.

Certain investment strategies and financial instruments discussed herein may only be appropriate for consideration in accounts qualified for high risk investment.

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.
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

Asia FI/FX Strategy & Economics

Helen Qiao
China & Asia Economist
Merrill Lynch (Hong Kong)
+852 3508 3961
helen.qiao@bofa.com

Claudio Piron
Emerging Asia FI/FX Strategist
Merrill Lynch (Singapore)
+65 6678 0401
claudio.piron@bofa.com

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

Jojo Gonzales ^^
Research Analyst
Philippine Equity Partners
jojo.gonzales@pep.com.ph

Abhay Gupta
Emerging Asia FI/FX Strategist
Merrill Lynch (Singapore)
abhay.gupta2@bofa.com

Pipat Luengnaruemitchai
Emerging Asia Economist
Kiatnakin Phatra Securities
pipat.luen@kkpfg.com

Mohamed Faiz Nagutha
Asia & ASEAN Economist
Merrill Lynch (Singapore)
mohamed_faiz.nagutha@bofa.com

Miao Ouyang
China & Asia Economist
Merrill Lynch (Hong Kong)
miao.ouyang@bofa.com

Xiaoqing Pi
China Economist
Merrill Lynch (Hong Kong)
xiaoqing.pi@bofa.com

Benson Wu
China & Korea Economist
Merrill Lynch (Hong Kong)
benson.wu@bofa.com

Ting Him Ho, CFA
Asia Economist
Merrill Lynch (Hong Kong)
tinghim.ho@bofa.com

Janice Xue
Rates Strategist
Merrill Lynch (Hong Kong)
janice.xue@bofa.com

Kai Wei Ang
Asia & ASEAN Economist
Merrill Lynch (Singapore)
kaiwei.ang@bofa.com

EEMEA Cross Asset Strategy, Econ

David Hauner, CFA >>
Global EM FI/FX Strategist
MLI (UK)
+44 20 7996 1241
david.hauner@bofa.com

Mai Doan
CEE/Israel Economist/Strategy
MLI (UK)
mai.doan@bofa.com

Zumrut Imamoglu
Turkey & Israel Economist
MLI (UK)
zumrut.imamoglu@bofa.com

Vladimir Osakovskiy >>
EEMEA Macro/Equity Strategist
Merrill Lynch (DIFC)
vladimir.osakovskiy@bofa.com

Jean-Michel Saliba
MENA Economist/Strategist
MLI (UK)
jean-michel.saliba@bofa.com

Merveille Paja
EEMEA Sovereign FI Strategist
MLI (UK)
merveille.paja@bofa.com

Mikhail Liluashvili
EEMEA Local Markets Strategist
MLI (UK)
mikhail.liluashvili@bofa.com

Tatonga Rusike
Sub-Saharan Africa Economist
MLI (UK)
tatonga.rusike@bofa.com

LatAm FI/FX Strategy & Economics

Claudio Irigoyen
LatAm FI/FX Strategy/Economist
BofAS
+1 646 855 1734
claudio.irigoyen@bofa.com

David Beker >>
Bz Econ/FI & LatAm EQ Strategy
Merrill Lynch (Brazil)
+55 11 2188 4371
david.beker@bofa.com

Jane Brauer
Sovereign Debt FI Strategist
BofAS
+1 646 855 9388
jane.brauer@bofa.com

Carlos Capistran
Canada and Mexico Economist
BofAS
+1 646 743 2921
carlos.capistran@bofa.com

Pedro Diaz
Caribbean Economist
BofAS
pdiaz2@bofa.com

Antonio Gabriel
LatAm Local Markets Strategist
BofAS
antonio.gabriel@bofa.com

Christian Gonzalez Rojas
LatAm Local Markets Strategist
BofAS
christian.gonzalezrojas@bofa.com

Lucas Martin, CFA
Sovereign Debt FI Strategist
BofAS
lucas.martin@bofa.com

Alexander Müller
Andean(ex-Ven) Carib Economist
BofAS
alexander.muller@bofa.com

Natacha Perez
Brazil Economist
Merrill Lynch (Brazil)
natacha.perez@bofa.com

Sebastian Rondeau
LatAm FI/FX Strategist
BofAS
sebastian.rondeau@bofa.com

BofA Securities participated in the preparation of this report, in part, based on information provided by Philippine Equity Partners, Inc. (Philippine Equity Partners). ^^Philippine Equity Partners employees are not registered/qualified as research analysts under FINRA rules.

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.

>> Employed by a non-US affiliate of BofAS and is not registered/qualified as a research analyst under the FINRA rules.

Refer to "Other Important Disclosures" for information on certain BofA Securities entities that take responsibility for the information herein in particular jurisdictions.